

# DICHIARAZIONE SOSTITUTIVA DI CERTIFICAZIONE

(Ai sensi dell'art. 46 D.P.R. 445/00)

Il sottoscritto **FILIPPO CARONE FABIANI**, consapevole delle responsabilità civili e penali derivanti da false o mendaci dichiarazioni, formazione di atti falsi e loro uso nei casi previsti dal D.P.R. sopra citato, sotto la sua personale responsabilità

## DICHIARA

Di essere in possesso delle seguenti pubblicazioni, conformi agli originali in proprio possesso:

### PUBBLICAZIONI

1. Carone Fabiani, F. *Incidence rate estimation of SARS-COVID-19 via a Polya process scheme: a comparative analysis in Italy and European countries*. arXiv. [arXiv:2104.11722](https://arxiv.org/abs/2104.11722) (2021). Submitted Scientific Reports
2. Leporini, R. Bertini, C. Carone Fabiani, F., *Fuzzy representation of finite-valued quantum gates*. Soft Computing volume 24, pages10305–10313 (2020). doi: [10.1007/s00500-020-04870-3](https://doi.org/10.1007/s00500-020-04870-3)
3. Baggio, R. Carone Fabiani, F. *Usare RapidMiner, App.D Algoritmi per l'Intelligenza Artificiale*, HOEPLI Editore Hoepli, (2020) ISBN 9788820391713. [www.hoeplieditore.it](http://www.hoeplieditore.it)
4. Carone Fabiani, F. Narducci, D. Cerofolini, G.F. *Dynamics of wave packets generated at a finite distance from a scattering step* Universal Journal of Physics and Application 2(3): 193-199, (2014) doi: [10.13189/ujpa.2014.020308](https://doi.org/10.13189/ujpa.2014.020308)
5. Carone Fabiani, F. *Adsorption and scattering phenomena in materials science*. Tesi di dottorato, Università Bicocca, Milano, 2014 [boa.unimib.it/handle/10281/50846](http://boa.unimib.it/handle/10281/50846)
6. Carone Fabiani, F. Fratesi, G. and Brivio, G. *Adsorption of H<sub>2</sub>S, HS, S, and H on a stepped Fe(310) surface* Eur. Phys. J. B 78, 455-460 (2010) doi: [10.1140/epjb/e2010-10616-8](https://doi.org/10.1140/epjb/e2010-10616-8)
7. Cerofolini, G.F. Giussani, A. Carone Fabiani, F. Modelli, A. Mascolo, D. Ruggiero, D. Narducci, D. Romano, F. *Combined IR and XPS analysis of the native (1 0 0) surface of single crystalline silicon after HFaq etching* Surf. Interface Anal. 39, 836-844 (2007) doi: [10.1002/sia.2599](https://doi.org/10.1002/sia.2599)
8. EMB Conference, Berlin 2019, Poster section: "Time Delays in Higher Language Areas during Language Activities"
9. Partecipante al Comitato Organizzatore per il III° IMS-ISBA meeting, MCMC-Ski II(Bormio) 2008, Poster section: "A clustering based approach to model averaging"

Luogo e data

PAVIA, 03.12.2021

# Elenco Pubblicazioni

Giordano Da Lozzo [giordano.dalozzo@uniroma3.it](mailto:giordano.dalozzo@uniroma3.it)

## TESI DI DOTTORATO:

- Giordano Da Lozzo. Planar Graphs with Vertices in Prescribed Regions: models, algorithms, and complexity. **PhD thesis**, Università degli Studi "Roma Tre", Dottorato di Ricerca in Ingegneria, Sezione Informatica ed Automazione, XXVII Ciclo, 2015.

## 12 PUBBLICAZIONI PRESENTATE:

1. Giordano Da Lozzo, David Eppstein, Michael T. Goodrich, Siddharth Gupta: C-Planarity Testing of Embedded Clustered Graphs with Bounded Dual Carving-Width. **Algorithmica** 83(8): 2471-2502 (2021)
  - Scimago Journal & Country Rank: Algorithmica (Year 2021): Not yet available for 2021
2. Patrizio Angelini, Michael A. Bekos, Franz J. Brandenburg, Giordano Da Lozzo, Giuseppe Di Battista, Walter Didimo, Michael Hoffmann, Giuseppe Liotta, Fabrizio Montecchiani, Ignaz Rutter, and Csaba D. Tóth. Simple  $k$ -planar graphs are simple  $(k+1)$ -quasiplanar. **Journal of Combinatorial Theory, Series B**, 142:1–35, 2020
  - Scimago Journal & Country Rank: Journal of Combinatorial Theory, Series B (Year 2020): Computational Theory and Mathematics **Q1** Discrete Mathematics and Combinatorics **Q1** Theoretical Computer Science **Q1**
3. Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, Vincenzo Roselli: Upward Planar Morphs. **Algorithmica** 82(10): 2985-3017 (2020)
  - Scimago Journal & Country Rank: Algorithmica (Year 2020): Computer Science (miscellaneous) **Q1**
4. Patrizio Angelini and Giordano Da Lozzo. Clustered Planarity with Pipes. **Algorithmica**, 81(6): 2484–2526, 2019.
  - Scimago Journal & Country Rank: Algorithmica (Year 2019): Computer Science (miscellaneous) **Q1**
5. Giordano Da Lozzo and Ignaz Rutter. Planarity of Streamed graphs. **Theoretical Computer Science**, 799:1–21, 2019.
  - Scimago Journal & Country Rank: Theoretical Computer Science (Year 2019): Computer Science (miscellaneous) **Q1**
6. Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Computing node-trix representations of clustered graphs. **Journal of Graph Algorithms and Applications**, 22(2):139–176, 2018.
  - Scimago Journal & Country Rank: Journal of Graph Algorithms and Applications (Year 2018): Computer Science (miscellaneous) **Q1**
7. Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Valentino Di Donato, Philipp Kindermann, Günter Rote, and Ignaz Rutter. Windrose planarity: Embedding graphs with direction-constrained edges. **ACM Transactions on Algorithms**, 14(4):54:1–54:24, 2018.
  - Scimago Journal & Country Rank: ACM Transactions on Algorithms (Year 2018): Mathematics (miscellaneous) **Q1**
8. Soroush Alamdari, Patrizio Angelini, Fidel Barrera-Cruz, Timothy M. Chan, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Penny Haxell, Anna Lubiw, Maurizio Patrignani, Vincenzo Roselli, Sahil Singla, and Bryan T. Wilkinson. How to morph planar graph drawings. **SIAM Journal on Computing**, 46(2):824–852, 2017.
  - Scimago Journal & Country Rank: SIAM Journal on Computing (Year 2017): Computer Science (miscellaneous) **Q1**

9. Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, and Fabrizio Frati. Strip planarity testing for embedded planar graphs. **Algorithmica**, 77(4):1022–1059, 2017.

- Scimago Journal & Country Rank: Algorithmica (Year 2017): Computer Science (miscellaneous) Q1

10. Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Ignaz Rutter. Intersection-link representations of graphs. **Journal of Graph Algorithms and Applications**, 21(4):731–755, 2017.

- Scimago Journal & Country Rank: Journal of Graph Algorithms and Applications (Year 2017): Computer Science (miscellaneous) Q1

11. Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Vincenzo Roselli. The importance of being proper: (in clustered-level planarity and t-level planarity). **Theoretical Computer Science**, 574:1–9, 2015.

- Scimago Journal & Country Rank: Theoretical Computer Science (Year 2015): Computer Science (miscellaneous) Q1

12. Patrizio Angelini, Giordano Da Lozzo, and Daniel Neuwirth. Advancements on SEFE and partitioned book embedding problems. **Theoretical Computer Science**, 575:71–89, 2015.

- Scimago Journal & Country Rank: Theoretical Computer Science (Year 2015): Computer Science (miscellaneous) Q1

www.albopretorium.it

# Elenco numerato delle pubblicazioni scientifiche presentate

## Candidato: Fabio D'Andreagiovanni

**(NOTA: per ogni rivista si riporta: 1) l'Impact Factor recuperato dal sito ufficiale della rivista alla data 08/12/2021, 2) il numero di citazioni recuperato dalla banda dati Scopus alla data 08/12/2021)**

**Indicatori** complessivi delle pubblicazioni presentate elencate di seguito:

- **Numero totale delle citazioni:** **365**
- **Numero medio di citazioni per pubblicazione:** **30.41**
- **Impact factor totale:** **60.657**
- **Impact factor medio** (calcolato dividendo l'impact factor totale per 11, così da considerare i soli articoli in rivista ed escludere il contributo in atti di convegno): **5.514**

### Articoli in rivista

1. L. Chiaraviglio, **F. D'Andreagiovanni**, W. Liu, J. A. Gutierrez, N. Blefari-Melazzi, K.R. Choo, M. Alouini, "Multi-Area Throughput and Energy Optimization of UAV-aided Cellular Networks Powered by Solar Panels and Grid", **IEEE Transactions on Mobile Computing** (IEEE, ISSN: 1536-1233), vol. 20, pp. 2427-2444, 2021, DOI: 10.1109/TMC.2020.2980834  
Impact Factor: 5.577  
Numero di citazioni: 7
2. R. G. Garroppo, M.G. Scutellà, **F. D'Andreagiovanni**, "Robust green Wireless Local Area Networks: A matheuristic approach", **Journal of Network and Computer Applications** (Elsevier, ISSN: 1084-8045) vol. 163, 102657, 2020, DOI: 10.1016/j.jnca.2020.102657  
Impact Factor: 6.281  
Numero di citazioni: 2
3. L. Chiaraviglio, **F. D'Andreagiovanni**, K.R. Choo, F. Cuomo, S. Colonnese, "Joint Optimization of Area Throughput and Grid-Connected Microgeneration in UAV-Based Mobile Networks", **IEEE Access** (IEEE, ISSN: 2169-3536) vol. 7, pp. 69545-69558, 2019, DOI: 10.1109/ACCESS.2019.2920065  
Impact Factor: 3.367  
Numero di citazioni: 8
4. L. Chiaraviglio, **F. D'Andreagiovanni**, C. Canali, R. Lancellotti, M. Shojafar, N. Blefari Melazzi, "An Approach to Balance Maintenance Cost and Electricity Consumption in Cloud Data Centers", **IEEE Transactions on Sustainable Computing** (IEEE, ISSN: 2377-3782), vol. 2(3), pp. 274-288, 2018, DOI: 10.1109/TSUSC.2018.2838338  
Impact Factor: non ancora assegnato alla rivista  
Numero di citazioni: 22
5. **F. D'Andreagiovanni**, F. Mett, A. Nardin, J. Pulaj, "Integrating LP-guided variable fixing with MIP heuristics in the robust design of hybrid wired-wireless FTTx access networks", **Applied Soft Computing** (Elsevier, ISSN: 1568-4946), vol. 61, pp. 1074-1087, 2017, DOI: 10.1016/j.asoc.2017.07.018  
Impact Factor: 6.725  
Numero di citazioni: 22

6. A. Marotta, **F. D'Andreagiovanni**, A. Kassler, E. Zola,  
"On the Energy Cost of Robustness for Green Virtual Network Function Placement in 5G Virtualized Infrastructures",  
**Computer Networks** (Elsevier, ISSN: 1389-1286) vol. 125, pp. 64-75, 2017, DOI: 10.1016/j.comnet.2017.04.045  
Impact Factor: 4.474  
Numero di citazioni: 41
7. A. Marotta, E. Zola, **F. D'Andreagiovanni**, A. Kassler,  
"A fast robust optimization-based heuristic for the deployment of green virtual network functions",  
**Journal of Network and Computer Applications** (Elsevier, ISSN: 1084-8045) vol. 95, pp. 42-53, 2017,  
DOI: 10.1016/j.jnca.2017.07.014  
Impact Factor: 6.281  
Numero di citazioni: 24
8. **F. D'Andreagiovanni**, A. Nardin,  
"Towards the fast and robust optimal design of Wireless Body Area Networks",  
**Applied Soft Computing** (Elsevier, ISSN: 1568-4946), vol. 37, pp. 971-982, 2015, DOI: 10.1016/j.asoc.2015.04.037  
Impact Factor: 6.725  
Numero di citazioni: 53
9. **F. D'Andreagiovanni**, J. Krolikowski, J. Pulaj,  
"A fast hybrid primal heuristic for Multiband Robust Capacitated Network Design with Multiple Time Periods",  
**Applied Soft Computing** (Elsevier, ISSN: 1568-4946) vol. 26, pp. 497-507, 2015, DOI: 10.1016/j.asoc.2014.10.016  
Impact Factor: 6.725  
Numero di citazioni: 53
10. T. Bauschert, C. Büsing, **F. D'Andreagiovanni**, A. Koster, M. Kutschka, U. Steglich,  
"Network Planning under Demand Uncertainty with Robust Optimization",  
**IEEE Communications Magazine** (IEEE, ISSN: 0163-6804), vol. 52 (2), pp. 178-185, 2014,  
DOI: 10.1109/MCOM.2014.6736760  
Impact Factor: 9.619  
Numero di citazioni: 49
11. **F. D'Andreagiovanni**, C. Mannino, A. Sassano,  
"GUB Covers and Power-Indexed Formulations for Wireless Network Design",  
**Management Science** (INFORMS, ISSN: 0025-1909) vol. 59 (1), pp. 142-156, 2013, DOI: 10.1287/mnsc.1120.1571  
Impact Factor: 4.883  
Numero di citazioni: 38

### **Contributi in atti di convegno**

12. A. Trotta, **F. D'Andreagiovanni**, M. Di Felice, E. Natalizio, K. Chowdhury,  
"When UAVs Ride a Bus: Towards Energy-efficient City-scale Video Surveillance",  
**IEEE INFOCOM 2018 (IEEE International Conference on Computer Communications)**, IEEE Xplore, 2018,  
DOI: 10.1109/INFOCOM.2018.8485863  
Numero di citazioni: 46

Luogo e data,  
COMPIEGNE, 08/12/2021

## Pierangelo Di Sanzo

### Elenco numerato delle pubblicazioni, tesi di dottorato ed indicatori

1. Pierangelo Di Sanzo, Dimitar R. Avresky, Alessandro Pellegrini (2021). Autonomic Rejuvenation of Cloud Applications as a Countermeasure to Software Anomalies. SOFTWARE, PRACTICE AND EXPERIENCE, vol. 51, ISSN: 1097-024X, doi: 10.1002/spe.2908 - Articolo in rivista
2. Alessandro Pellegrini, Pierangelo Di Sanzo, Beatrice Bevilacqua, Gabriella Duca, Domenico Pascarella, Roberto Palumbo, Juan José Ramos, Miquel Àngel Píera, Gabriella Gigante (2020). Simulation-Based Evolutionary Optimization of Air Traffic Management. IEEE ACCESS, ISSN: 2169-3536, doi: 10.1109/ACCESS.2020.3021192 - Articolo in rivista
3. Romolo Marotta, Davide Tiriticco, Pierangelo Di Sanzo, Alessandro Pellegrini, Bruno Ciciani, Francesco Quaglia (2020). Mutable locks: Combining the best of spin and sleep locks. CONCURRENCY AND COMPUTATION, vol. 32, ISSN: 1532-0626, doi: 10.1002/cpe.5858 - Articolo in rivista
4. Matteo Principe, Tommaso Tocci, Pierangelo Di Sanzo, Francesco Quaglia, Alessandro Pellegrini (2020). A Distributed Shared Memory Middleware for Speculative Parallel Discrete Event Simulation. ACM TRANSACTIONS ON MODELING AND COMPUTER SIMULATION, vol. 30, ISSN: 1049-3301, doi: 10.1145/3373335 - Articolo in rivista
5. Di Sanzo, Pierangelo, Pellegrini, Alessandro, Sannicandro, Marco, Ciciani, Bruno, Quaglia, Francesco (2020). Adaptive Model-based Scheduling in Software Transactional Memory. IEEE TRANSACTIONS ON COMPUTERS, vol. 69, p. 621-632, ISSN: 0018-9340, doi: 10.1109/TC.2019.2954139 - Articolo in rivista
6. Pierangelo Di Sanzo (2017). Analysis, classification and comparison of scheduling techniques for software transactional memories. IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS, vol. 28, p. 3356-3373, ISSN: 1045-9219, doi: 10.1109/TPDS.2017.2740285 - Articolo in rivista
7. Rughetti, Diego, Di Sanzo, Pierangelo, Ciciani, Bruno, Quaglia, Francesco (2017). Machine learning-based thread-parallelism regulation in software transactional memory. JOURNAL OF PARALLEL AND DISTRIBUTED COMPUTING, vol. 109, p. 208-229, ISSN: 0743-7315, doi: 10.1016/j.jpdc.2017.06.001 - Articolo in rivista
8. Di Sanzo, Pierangelo, Quaglia, Francesco, Ciciani, Bruno, Pellegrini, Alessandro, Didona, D., Romano, Paolo, Palmieri, Roberto, Peluso, Sebastiano (2015). A flexible framework for accurate simulation of cloud in-memory data stores. SIMULATION MODELLING PRACTICE AND THEORY, vol. 58, p. 219-238, ISSN: 1569-190X, doi: 10.1016/j.simpat.2015.05.011 - Articolo in rivista
9. Conoci, Stefano, Di Sanzo, Pierangelo, Alessandro Pellegrini, Bruno Ciciani, Francesco

Quaglia (2021). On Power Capping and Performance Optimization of Multi-threaded Applications. CONCURRENCY AND COMPUTATION, vol. 33, ISSN: 1532-0626, doi: 10.1002/CPE.6205 - Articolo in rivista

10. Di Sanzo, Pierangelo, Ciciani, Bruno, Palmieri, Roberto, Quaglia, Francesco, Paolo Romano (2012). On the analytical modeling of concurrency control algorithms for Software Transactional Memories: The case of Commit-Time-Locking. PERFORMANCE EVALUATION, vol. 69, p. 187-205, ISSN: 0166-5316, doi: 10.1016/j.peva.2011.05.002 - Articolo in rivista
11. Silvestri, Emiliano, Pellegrini, Alessandro, Di Sanzo, Pierangelo, Quaglia, Francesco (2021). Preemptive Software Transactional Memory. IEEE TRANSACTIONS ON COMPUTERS - Articolo in rivista
12. Di Sanzo, Pierangelo, Sannicandro, Marco, Ciciani, Bruno, Quaglia, Francesco (2016). Markov Chain-Based Adaptive Scheduling in Software Transactional Memory. In: 2016 IEEE International Parallel and Distributed Processing Symposium (IPDPS 2016). PROCEEDINGS - IEEE INTERNATIONAL PARALLEL AND DISTRIBUTED PROCESSING SYMPOSIUM, p. 373-382, Institute of Electrical and Electronics Engineers Inc., ISBN: 9781509021406, ISSN: 1530-2075, Chicago, Illinois; USA, 2016, doi: 10.1109/IPDPS.2016.104 - Contributo in Atti di convegno

**Tesi di dottorato:** "Performance Models of Concurrency Control Protocols for Transaction Processing Systems". Sapienza Università di Roma. Dottorato di Ricerca in Ingegneria Informatica. XXIV Ciclo – 2011.

## Indicatori

- Numero complessivo di lavori su banche dati internazionali riconosciute per l'abilitazione scientifica nazionale: 43 (Banca dati: Scopus);
- Indice di Hirsch (*h-index*): 11 (Banca dati: Scopus), 13 (Banca dati: Google Scholar);
- Numero totale delle citazioni: 297 (Banca dati: Scopus), 530 (Banca dati: Google Scholar);
- Numero medio di citazioni per pubblicazione: 6,90 (Scopus);
- Impact factor delle riviste relativamente all'anno di pubblicazione (Banca dati: Journal Citation Report from Clarivate Analytics - Web Of Science):

- *IEEE Transactions on Computers* - 2020 Impact factor=2.663
- *IEEE Transactions on Computers* - 2019 Impact factor=2,711
- *IEEE Access* - 2020 Impact factor=3,367
- *Software: Practice and Experience* - 2020 Impact factor=2,028
- *IEEE Transactions on Parallel and Distributed Systems* - 2017 Impact factor=3,971
- *ACM Transactions on Modeling and Computer Simulation* - 2020 Impact factor=1,075
- *Concurrency and Computation: Practice and Experience* - 2020 Impact factor=1,536
- *Concurrency and Computation: Practice and Experience* - 2020 Impact factor=1,536

- *Journal of Parallel and Distributed Computing* - 2017 Impact factor=1,815
- *Simulation Modelling Practice and Theory* - 2015 Impact factor= 1,320
- *Performance Evaluation* - 2012 Impact factor=0,841

Impact factor totale e impact factor medio per le pubblicazioni su rivista, calcolati in relazione all'anno della pubblicazione (per le riviste per cui non è disponibile l'impact factor per l'anno 2021 si è considerato l'impact factor relativo all'anno 2020):

Impact factor totale	20,203
Impact factor medio	18,366

Roma, 08/12/2021

Pierangelo Di Sanzo

www.AlboPretorionline.it

Procedura pubblica di selezione a n° 1 posto di ricercatore universitario a tempo determinato, ai sensi dell'Art. 24, c. 3 lettera b) della L. 240/2010, da assumere con contratto di lavoro subordinato, per la durata di tre anni per il settore concorsuale 09/H1, S.S.D. ING-INF/05 presso il Dipartimento di Economia, bandita con decreto rettorale disponibile sul sito pubblico <http://www.albopretorionline.it/uniroma/alboente.aspx> ed il cui avviso è pubblicato sulla Gazzetta Ufficiale n. 89 del 09/11/2021.

## Valsamis Ntouskos - Elenco Pubblicazioni

### Elenco Pubblicazioni:

1. B. Franchetti, **V. Ntouskos**, P. Giuliani, T. Heinman, L. Barnes, F. Pirri, 2019: Vision based modeling of plants phenotyping in vertical farming under artificial lighting, *Sensors* 19 (20), MDPI, p. 4378. ISSN: 1424-8220, DOI: [10.3390/s19204378](https://doi.org/10.3390/s19204378)
2. M. Sanzari, **V. Ntouskos**, F. Pirri, 2019: "Discovery and recognition of motion primitives in human activities," *PLOS One* 14(4): e0214499. ISSN: 1932-6203, DOI: [10.1371/journal.pone.0214499](https://doi.org/10.1371/journal.pone.0214499)
3. **V. Ntouskos**, F. Pirri, M. Pizzoli, A. Sinha, and B. Cafaro, 2013: Saliency prediction in the coherence theory of attention. *Biologically Inspired Cognitive Architectures*, **5**, 10-28. ISSN: 2212-683X, DOI: [10.1016/j.bica.2013.05.012](https://doi.org/10.1016/j.bica.2013.05.012)
4. E. Alati, L. Mauro, **V. Ntouskos**, F. Pirri, 2019: Help by Predicting what to Do. *IEEE Int'l Conf. on Image Processing (ICIP)*, Taipei, Taiwan. ISSN: 1522-4880, DOI: [10.1109/ICIP.2019.8803155](https://doi.org/10.1109/ICIP.2019.8803155)
5. F. Puja, S. Grazioso, L. Mauro, **V. Ntouskos**, M. Sanzari, L. Freda and F. Pirri, 2018: Visual search and recognition for robot task execution and monitoring. *Proceedings of Applications of Intelligent Systems (APPIS)*. ISSN: 0922-6389, DOI: [10.3233/978-1-61499-929-4-94](https://doi.org/10.3233/978-1-61499-929-4-94)
6. I. Kruijff-Korabayová, L. Freda, M. Gianni, **V. Ntouskos**, V. Hlaváč, V. Kubelka, E. Zimmermann, H. Surmann, K. Dulic, W. Rottner, and E. Gissi, 2016: Deployment of ground and aerial robots in earthquake-struck Amatrice in Italy (brief report). *Proc. International Symposium on Safety, Security and Rescue Robotics (SSRR)*. Lausanne, Switzerland. DOI: [10.1109/SSRR.2016.7784314](https://doi.org/10.1109/SSRR.2016.7784314)
7. M. Sanzari, **V. Ntouskos**, and F. Pirri, 2016: Bayesian image based 3D pose estimation. *Proc. European Conference on Computer Vision (ECCV)*. Amsterdam, Netherlands. ISSN: 0302-9743. DOI: [10.1007/978-3-319-46484-8\\_34](https://doi.org/10.1007/978-3-319-46484-8_34)
8. F. Natola, **V. Ntouskos**, F. Pirri, and M. Sanzari, 2016: Single Image Object Modeling Based on BRDF and r-Surfaces Learning. *Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. Las Vegas, NV, IEEE, 4414-4423. ISSN: 1063-6919, DOI: [10.1109/CVPR.2016.478](https://doi.org/10.1109/CVPR.2016.478)
9. **V. Ntouskos**, M. Sanzari, B. Cafaro, F. Nardi, F. Natola, F. Pirri, and M. Ruiz 2015: Component-wise modeling of articulated objects. *Proc. IEEE International Conference on Computer Vision (ICCV)*. Santiago, Chile, IEEE, 2327-2335. ISSN: 1550-5499, DOI: [10.1109/ICCV.2015.268](https://doi.org/10.1109/ICCV.2015.268)

10. F. Natola, **V. Ntouskos**, M. Sanzari, and F. Pirri, 2015: Bayesian non-parametric inference for manifold based MoCap representation. *Proc. IEEE International Conference on Computer Vision (ICCV)*. Santiago, Chile, IEEE, 4606-4614. ISSN: 1550-5499, DOI: [10.1109/ICCV.2015.523](https://doi.org/10.1109/ICCV.2015.523)
11. **V. Ntouskos**, P. Papadakis, and F. Pirri, 2014: Probabilistic Discriminative Dimensionality Reduction for Pose-Based Action Recognition. *Pattern Recognition Applications and Methods*, A. Fred, and M. De Marsico. Springer International Publishing, 137-152. ISSN: 1615-3871, DOI: [10.1007/978-3-319-12610-4\\_9](https://doi.org/10.1007/978-3-319-12610-4_9)
12. **V. Ntouskos**, P. Papadakis, and F. Pirri, 2012: A comprehensive analysis of human motion capture data for action recognition. *Proc. International Conference on Computer Vision Theory and Applications (VISAPP 2012)*. Rome, Italy, INSTICC, 647-652. ISBN: 9789898565037, DOI: [10.5220/0003868806470652](https://doi.org/10.5220/0003868806470652)

Tesi di dottorato:

Valsamis Ntouskos, 2016: Inverse Problem Theory in Shape and Action Modeling

Il sottoscritto ANDREA RIBICHINI nell'ambito della procedura pubblica di selezione a n° 1 posto di ricercatore universitario a tempo determinato, ai sensi dell'Art. 24, c. 3 lettera b) della L. 240/2010, da assumere con contratto di lavoro subordinato, per la durata di tre anni per il settore concorsuale 09/H1, S.S.D. ING-INF/05, presso il Dipartimento di Economia dell'Università degli Studi Roma TRE, bandita con decreto rettorale disponibile sul sito pubblico <http://www.albopretorionline.it/uniroma/alboente.aspx> ed il cui avviso è pubblicato sulla Gazzetta Ufficiale n. 89 del 09/11/2021

#### ACCLUDE

alla propria domanda di partecipazione copia della propria Tesi di Dottorato:

A. Ribichini "Streaming Algorithms for Graph Problems", PhD Thesis.

Il sottoscritto acclude inoltre le seguenti pubblicazioni:

1. C. Demetrescu, A. Ribichini, M. Schaerf "Are Italian research assessment exercises size-biased?", pubblicato su *Scientometrics* 125 (2020), pagg. 533-549, Springer.
2. C. Demetrescu, I. Finocchi, A. Ribichini, M. Schaerf "On bibliometrics in academic promotions: a case study in computer science and engineering in Italy", pubblicato su *Scientometrics* 124 (2020), pagg. 2207-2228, Springer.
3. G. Ausiello, P. G. Franciosa, I. Lari, A. Ribichini "Max flow vitality in general and st-planar graphs", pubblicato su *Networks*, volume 74, numero 1 (2019), pagg. 70-78, Wiley.
4. C. Demetrescu, F. Lupia, A. Mendicelli, A. Ribichini, F. Scarcello, M. Schaerf "On the Shapley value and its application to the Italian VQR research assessment exercise", pubblicato su *Journal of Informetrics (JOI)*, volume 13, numero 1 (Febbraio 2019), pagg. 87-104, Elsevier.
5. C. Demetrescu, A. Ribichini, M. Schaerf "Accuracy of Author Names in Bibliographic Data Sources: An Italian Case Study", pubblicato su *Scientometrics*, volume 117, numero 3 (Dicembre 2018), pagg. 1777-1791, Springer.
6. F. Lupia, A. Mendicelli, A. Ribichini, F. Scarcello, M. Schaerf "Computing the Shapley value in allocation problems: approximations and bounds, with an application to the Italian VQR research assessment program", pubblicato su *Journal of Experimental & Theoretical Artificial Intelligence (JETAI)*, volume 30, numero 4 (2018), pagg. 505-524, Taylor & Francis.
7. G. Ausiello, P. G. Franciosa, G. F. Italiano, A. Ribichini "On Resilient Graph Spanners", pubblicato su *Algorithmica*, volume 74, numero 4 (Aprile 2016), pagg. 1363-1385, Springer.

8. C. Demetrescu, I. Finocchi, A. Ribichini "Reactive Imperative Programming with Dataflow Constraints", pubblicato su ACM Transactions on Programming Languages and Systems (TOPLAS), volume 37, numero 1 (Novembre 2014), articolo n. 3, ACM New York, NY, USA.
9. G. Ausiello, P. G. Franciosa, G. F. Italiano, A. Ribichini "Computing Graph Spanners in Small Memory: Fault-Tolerance and Streaming", pubblicato su Discrete Mathematics, Algorithms and Applications (DMAA), volume 2, numero 4 (2010), pagg. 591-605, World Scientific Publishing Company.
10. C. Demetrescu, B. Escoffier, G. Moruz, A. Ribichini "Adapting Parallel Algorithms to the W-Stream Model, with Applications to Graph Problems", pubblicato su Theoretical Computer Science (TCS), volume 411, numero 44-46 (Ottobre 2010), pagg. 3994-4004, Elsevier Science Publishers Ltd. Essex, UK.
11. C. Demetrescu, I. Finocchi, A. Ribichini "Trading Off Space for Passes in Graph Streaming Problems", pubblicato su ACM Transactions on Algorithms (TALG), volume 6, numero 1 (Dicembre 2009), pagg. 1-17, ACM New York, NY, USA.
12. G. Ausiello, C. Demetrescu, P. G. Franciosa, G. F. Italiano, A. Ribichini "Graph Spanners in the Streaming Model: an Experimental Study", pubblicato su Algorithmica, volume 55, numero 2 (Ottobre 2009), pagg. 346-374, Springer New York.

Roma, 17/11/2021

# Elenco delle Pubblicazioni Presentate

1. 2010 – Articolo in Rivista Internazionale  
Matteo Comin, **Davide Verzotto**.  
**Classification of Protein Sequences by Means of Irredundant Patterns.**  
BMC BIOINFORMATICS, 2010, vol. 11, no. S16, London, UK, ISSN: 1471-2105, doi: 10.1186/1471-2105-11-S1-S16, **IF: 3.0**, citations: **21** (**ANVUR Class A**, SJR: 1.6 – **Q1 Computer Science**, SNIP: 1.2, 5y-IF: 3.2).  
Equal contribution.
2. 2011 – Articolo in Rivista Internazionale  
Matteo Comin, **Davide Verzotto\***.  
**The Irredundant Class Method for Remote Homology Detection of Protein Sequences.**  
JOURNAL OF COMPUTATIONAL BIOLOGY (Liebert), 2011, vol. 18, no. 12, p. 1819–1829, New Rochelle, NY, USA, ISSN: 1066-5277, doi: 10.1089/cmb.2010.0171, **IF: 1.9**, citations: **27** (**ANVUR Class A** (2011), SJR: 1.8 – **Q1 Computer Science**, SNIP: 0.9, 5y-IF: 1.8).  
*\*Corresponding author.*
3. 2012 – Articolo in Rivista Internazionale  
Matteo Comin, **Davide Verzotto**.  
**Alignment-Free Phylogeny of Whole Genomes using Underlying Subwords.**  
ALGORITHMS FOR MOLECULAR BIOLOGY (BMC), 2012, vol. 7, no. 34, London, UK, ISSN: 1748-7188, doi: 10.1186/1748-7188-7-34, **IF: 2.1**, citations: **66** (**ANVUR Class A**, SJR: 2.0 – **Q1 Computer Science**, SNIP: 1.2, 5y-IF: 2.2).  
Equal contribution.

4. 2012 – Contributo in Atti di Convegno Internazionale

Matteo Comin, **Davide Verzotto\***.

**Whole-Genome Phylogeny by Virtue of Unic Subwords.**

Proceedings of the Twenty-Third International Workshop on Database and Expert Systems Applications (DEXA 2012), Biological Knowledge Discovery from Big Data, IEEE COMPUTER SOCIETY CPS, Vienna, Austria, 3 settembre 2012, ISBN: 9781467326216, doi: 10.1109/DEXA.2012.10, citations: **20** (**ERA CORE08 rank: A**; *IEEE proceedings, highly cited article*).

*\*Corresponding author*

5. 2013 – Contributo in Volume Internazionale (Capitolo e Saggio)

Matteo Comin, **Davide Verzotto\***.

**Comparing, Ranking, and Filtering Motifs with Character Classes: Application to Biological Sequences Analysis.**

In BIOLOGICAL KNOWLEDGE DISCOVERY HANDBOOK: PREPROCESSING, MINING AND POSTPROCESSING OF BIOLOGICAL DATA, Biological Feature Selection, Chapter 13. M. Elloumi and A.Y. Zomaya (Eds.), WILEY Book Series on Bioinformatics: Computational Techniques and Engineering, John Wiley & Sons Inc., Hoboken, NJ, USA, ISBN: 978-1-118-13273-9, doi: 10.1002/9781118617151.ch13, citations: **10**.

*\*Corresponding author*

6. 2014 – Articolo in Rivista Internazionale

Matteo Comin, **Davide Verzotto\***.

**Beyond Fixed-Resolution Alignment-free Measures for Mammalian Enhancers Sequence Comparison.**

IEEE/ACM TRANSACTIONS ON COMPUTATIONAL BIOLOGY AND BIOINFORMATICS, 2014, vol. 11, no. 4, p. 628–637, IEEE Computer Society, Los Alamitos, CA, USA, ISSN: 1545-5963, doi: 10.1109/TCBB.2014. 2306830, **IF: 2.9**, citations: **20** (SJR: 0.8, SNIP: 1.2, 5y-IF: 1.6; *IEEE publication*).

*\*Corresponding author.*

7. 2015 – Articolo in Rivista Internazionale  
 Audrey S.M. Teo, **Davide Verzotto\***, Fei Yao, Niranjan Nagarajan, Axel M. Hillmer.  
**Single-Molecule Optical Genome Mapping of a Human HapMap and a Colorectal Cancer Cell Line – A Computational Analysis.**  
GIGASCIENCE (Oxford Journals/BMC), 2015, vol. 4, no. 65, London, UK, ISSN: 2047-217X, doi: 10.1186/s13742-015-0106-1, IF: **7.5**, citations: **13** (**ANVUR Class A 1-equivalent**, SJR: 5 – **Q1 Computer Science**, SNIP: 1.8, 5y-IF: 11.7; highly accessed article).  
*GigaScience is one of the leading journals focusing on both Computational and (Biological) Data Science, while pioneering open science (i.e. open peer-reviews, contributions, data, and source codes).*  
*\*Leader and main author of the Computational Analysis.*
8. 2015 – Contributo in Atti di Convegno Internazionale  
**Davide Verzotto\***, Audrey S.M. Teo, Axel M. Hillmer, Niranjan Nagarajan.  
**Index-based Map-to-Sequence Alignment in Large Eukaryotic Genomes.**  
 Proceedings of the Fifth RECOMB Annual Satellite Workshop on Massively Parallel Sequencing (within RECOMB 2015), Warsaw, Poland, 10 aprile 2015, doi: 10.1101/017194, citations: **6** (**ERA CORE08 rank: A**; highly selective conference, acceptance rate: 27%).  
*\*Corresponding and First author.*
9. 2016 – Articolo in Rivista Internazionale  
**Davide Verzotto\***, Audrey S.M. Teo, Axel M. Hillmer, Niranjan Nagarajan.  
**OPTIMA: Sensitive and Accurate Whole-Genome Alignment of Error-prone Genomic Maps by Combinatorial Indexing and Technology-Agnostic Statistical Analysis.**  
GIGASCIENCE (Oxford Journals/BMC), 2016, vol. 5, no. 2, London, UK, ISSN: 2047-217X, doi: 10.1186/s13742-016-0110-0, IF: **7.5**, citations: **19** (**ANVUR Class A 1-equivalent**, SJR: 5 – **Q1 Computer Science**, SNIP: 1.8, CiteScore: 6.8, 5y-IF: 11.7; please see the assigned open badges to the article, which is one the most accessed).  
*\*Corresponding and First author.*

10. 2018 – Contributo in Atti di Convegno Internazionale  
 Fabio Garofalo, Giovanna Rosone, Marinella Sciortino, **Davide Verzotto**.  
**The Colored Longest Common Prefix Array Computed via Sequential Scans.**  
 Proceedings of the Twenty-Fifth International Symposium on String Processing and Information Retrieval (SPIRE 2018), LECTURE NOTES IN COMPUTER SCIENCE, vol. 11147, Springer, Lima, Peru, 9 ottobre 2018, ISBN: 9783030004798, ISSN: 1611-3349, doi: 10.1007/978-3-030-00479-8\_13, citations: **5** (**ERA CORE rank: B, Qualis rank: A1**; *selective, topical conference*).  
 Equal contribution.
  
11. 2018 – Articolo in Rivista Internazionale  
 Tze Hau Lam, **Davide Verzotto\***, Purbita Brahma, Amanda Hui Qi Ng, Ping Hu, Dan Schnell, Jay Tiesman, Rong Kong, Thi My Uyen Ton, Jianjun Li, May Ong, Yang Lu, David Swaile, Ping Liu, Jiquan Lin, Miranjan Nagarajan.  
**Understanding the Microbial Basis of Body Odor in Pre-Pubescent Children and Teenagers – A Computational Analysis.**  
BMC MICROBIOME, vol. 6, no. 213, London, UK, ISSN: 2049-2618, doi: 10.1186/s40168-018-0588-z, **IF: 9.1**, citations: **25** (**ANVUR Class A 1-equivalent**, SJR: 5.3, SNIP: 2.1, 5y-IF: 10.9; industrial collaboration with Procter & Gamble Co., USA and Singapore; *highly accessed and cited article*).  
*\*Leader and main author of the Computational Analysis.*
  
12. 2019 – Contributo in Atti di Convegno Internazionale  
 Hend Amraoui, Mourad Elboumi, Francesco Marcelloni, Faouzi Mhamdi, **Davide Verzotto\***.  
**Theoretical and Practical Analyses in Metagenomic Sequence Classification.**  
 Proceedings of the Thirtieth International Conference on Database and Expert Systems Applications (DEXA 2019), Workshop on Biological Knowledge Discovery from Big Data, COMMUNICATIONS IN COMPUTER AND INFORMATION SCIENCE, vol. 1062, Linz, Austria, 26 agosto 2019, Springer, doi: 10.1007/978-3-030-27684-3\_5, (**ERA CORE08 rank: A**).  
*\*Corresponding and Senior author.*

13. 2012 – Tesi di Dottorato di Ricerca

**Davide Verzotto.**

**Advanced Computational Methods for Massive Biological Sequence Analysis.**

Ph.D. Thesis in Information Engineering (Computer Science and Engineering), Department of Information Engineering, **University of Padova**, Padua, Italy, no. 4988, 13 aprile 2012, URL: [http://paduaresearch.cab.unipd.it/4988/1/Davide\\_Verzotto-PhD\\_Thesis.pdf](http://paduaresearch.cab.unipd.it/4988/1/Davide_Verzotto-PhD_Thesis.pdf)

Pisa, 6 dicembre 2021.

Davide Verzotto

# Filippo Carone Fabiani

---

ORCID: [0000-0001-5946-9709](https://orcid.org/0000-0001-5946-9709)

## INTERESSI DI RICERCA

Machine Learning, Neural Network, Pattern Recognition. Processi stocastici. Modeling e Analisi dei Dati.

## ISTRUZIONE E FORMAZIONE

2008–2012 **PhD in Scienza dei Materiali**, "*Adsorption and Scattering Phenomena in Materials Science*" Università Bicocca, Milano. Sviluppo di modelli computazionali per l'analisi di sistemi quantistici statistici. Sviluppo di software per la soluzione dell'equazione di Schrödinger con condizioni assorbenti al contorno.

2006–2007 **Master II° in Methods for Managment of Complex Systems**, "*Exploiting of soft computing techniques for XPS data analysis*", Istituto Universitario di Studi Superiori (IUSS), Università di Pavia in collaborazione con STMicroelectronics Agrate (MI) Italia. Sviluppo di modelli statistici e di Machine Learning per la classificazione e l'analisi di segnali provenienti da X-ray Photoemission Spectroscopy. Sviluppo di un algoritmo di Expectation-Maximization per la decomposizione di segnali Gaussiani.

1992–2002 **Laurea in Fisica Teorica**, "*Ruolo dei campi non ordinanti nei sistemi superconduttivi ad alta temperatura critica*", Universtà La Sapienza, Roma. Sviluppo di una teoria di campo per la descrizione delle transizioni di fase in sistemi quantistici statistici fortemente correlati.

## INCARICHI ACCADEMICI

2021–2022 **Professore a contratto**  
Università degli Studi di Milano Bicocca, Dipartimento di Statistica e Metodi quantitativi  
Metodi statistici

2021–2022 **Professore a contratto**  
Università degli Studi di Milano Bicocca, Dipartimento di Scienze Economico-Aziendali e Diritto per l'Economia  
Informatica generale e laboratorio di informatica

2021–2022 **Professore a contratto**  
Università degli Studi di Milano Statale, Dipartimento di Bioscienze  
Matematica generale e Laboratorio di informatica

- 2021–2022 **Professore a contratto**  
Università di Bergamo, Dipartimento di Scienze economiche  
Esercitazioni di informatica
- 2020–2021 **Assegnista di Ricerca**  
Università di Bergamo, Dipartimento di Ingegneria e Scienze Applicate  
Sviluppo di algoritmi di ottimizzazione per l'analisi di sistemi microelettronici intelligenti a transistor CMOS
- 2019–2020 **Assegnista di Ricerca**  
Università di Bergamo, Dipartimento di Ingegneria e Scienze Applicate  
Sviluppo di algoritmi di Machine Learning per il riconoscimento e la classificazione di segnali neuroelettrici per i sistemi Brain-Computer-Interface. Implementazione di una Recurrent Neural Network (LSTM-ANN) con diverse sorgenti (ECoG, EEG, EMG) per il riconoscimento del linguaggio, silente e pensato (silent speech, imagined speech)
- 2018–2019 **Assegnista di Ricerca**  
Università di Bergamo, Dipartimento di Ingegneria e Scienze Applicate  
Sviluppo di algoritmi di Machine Learning per il riconoscimento e la classificazione di segnali neuroelettrici nei sistemi Brain-Computer-Interface. Implementazione di una Recurrent Neural Network (LSTM-ANN) con diverse sorgenti (ECoG, EEG, EMG) per il riconoscimento del linguaggio, silente e pensato (silent speech, imagined speech)
- 2018–2019 **Professore a contratto**  
Università di Bergamo, Dipartimento di Ingegneria e Scienze Applicate  
Corso di Fisica I-II, Ingegneria delle tecnologie per la salute
- 2018–2019 **Professore a contratto**  
Università di Bergamo, Dipartimento di Ingegneria e Scienze Applicate  
Comunicazione Scientifica
- 2008–2009 **Professore a contratto**  
Università dell'Insubria, Varese, Dipartimento di Economia  
Fondamenti di Informatica
- 2008–2009 **Borsista**  
Università dell'Insubria, Varese  
Sviluppo di tecniche di riduzione della varianza in simulazioni Markov Chains Montecarlo
- 2007–2008 **Borsista**  
Università di Pavia, Dipartimento di Statistica L.Lenti  
Sviluppo di tecniche di Clustering non convenzionale (Super-Para-Magnetic Clustering) per la selezione di modelli di rischio

## INSEGNAMENTI E TUTORAGGIO

- 2020–2021 Correlatore tesi di Laurea triennale di Laura Zanetti. "Reti Neurali per la ricostruzione del linguaggio umano"  
Università di Bergamo, Dipartimento di Ingegneria delle Tecnologie per la Salute
- 2019–2020 Correlatore tesi di Laurea triennale di Clara Locatelli. "Strumenti innovativi per la sanità 4.0"  
Università di Bergamo, Dipartimento di Ingegneria Gestionale
- 2018–2019 Correlatore tesi di Laurea triennale di Andrea Romagialli. "Eye Tracking: uno sguardo al futuro dal marketing alla sanità 4.0"  
Università di Bergamo, Dipartimento di Ingegneria Gestionale
- 2017–2018 Correlatore tesi di Laurea Magistrale di Angela Maria Graffagnino. "Studio numerico della termalizzazione di una catena di oscillatori accoppiati"  
Università di Bergamo, Dipartimento di Ingegneria e Scienza Applicata
- 2008–2009 Docente Esercitazioni, Corso di Statistica Bayesiana  
Università dell'Insubria, Varese, Dipartimento di Economia
- 2008–2009 Docente Esercitazioni, Corso di Metodi Matematici  
Università di Pavia, Dipartimento di Statistica L.Lenti

## CONGRESSI WORKSHOP E SEMINARI

### CONTRIBUTI

- 2019 EMB Conference, Berlin 2019, Poster section: "Time Delays in Higher Language Areas during Language Activities"
- 2018 Workshop: "Brain to Italian text", Università di Bergamo, Dipartimento di Ingegneria Gestionale, Università di Pavia, Dipartimento di Ingegneria Elettronica
- 2008 Partecipante al Comitato Organizzatore per il III° IMS-ISBA meeting, MCMC-Ski II(Bormio), Poster section: "An unconventional clustering approach for model selection"

### PARTECIPAZIONE

- 2019 Workshop "Soluzioni HPC per le neuroscienze" CINECA, Bologna
- 2018 Workshop "Accelerating and Parallelizing MATLAB Code on HPC infrastructure" CINECA, Bologna
- 2018 Workshop "Introduction to the DAVIDE OpenPower GPU cluster" CINECA, Bologna
- 2009 ECOSS, 26nd European Conference on Surface Science", Parma (Italy),
- 2007 Certificato per il corso in "Teoria dei Giochi", Università di Pavia

## ESPERIENZE PROFESSIONALI

2016–oggi **Docente/Consulente**

H-DATA S.r.l.s.

Corsi di Big Data, Machine Learning, Business Intelligence. Alcune tra le aziende: Poste Italiane S.p.a., Gesca S.r.l., MOV S.n.c., AQUOIN, Campagnolo Trasporti S.p.a.

2016–oggi **Fondatore e C.E.O. di H-DATA S.r.l.s**

[www.HDATA-e.com](http://www.HDATA-e.com)

Progettazione e sviluppo di sistemi di Intelligenza Artificiale per la Business Intelligence. Corsi di formazione aziendale: Big Data, Machine Learning, Business Intelligence.

2016–2017 **Docente**

Fondazione Le Vele, Pavia

Corsi professionali regionali di Big Data e Machine Learning

2015–2016 **Docente**

Fondazione Le Vele, Pavia

Corsi professionali regionali di Fondamenti di Informatica

2013–oggi **Insegnante**

Istituti Statali di Istruzione Superiore di secondo livello della Provincia di Pavia  
Fisica, Matematica, Informatica, Elettronica

2010–2011 **Consulente scientifico.**

GEM elettronica S.Benedetto del Tronto (AP)

Sviluppo di Reti neurali per il modellamento degli effetti di drift termico in dispositivi di rilevamento Fibre optic gyroscope (F.O.G).

2006–2008 **R&D Staff**

STMicroelectronics Agrate (MI)

Sviluppo di modelli statistici e di Machine Learning per la classificazione e l'analisi di segnali provenienti da X-ray Photoemission Spectroscopy. Analisi della dinamica di pacchetti gaussiani soggetti a fenomeni di tunneling quantistico

2005–2006 **Revisore scientifico**

Casa Editrice "Di Renzo Editore" (RM)

Revisione, traduzione di pubblicazioni scientifiche divulgative.

## PROGETTI PREMIATI

### 2016– Ideatore e Project Manager

H-DATA S.r.l.s

Progettazione e sviluppo di una piattaforma mobile-health C.U.R.A. (Continuous User Real-time Analysis ) per il monitoraggio dello stato di salute dell'utente/paziente, basata su algoritmi di classificazione di tipo Decision Tree per la previsione di insorgenza di patologie o disfunzioni

Selezionato per l'Acceleratore d'Impresa *Mind The Bridge*, Polo Tecnologico di Pavia

### 2016–2017 Ideatore e Project Manager

H-DATA S.r.l.s

Progettazione e sviluppo della mobile App BrandUp per il web marketing che utilizza reti bayesiane, addestrate con i dati di geolocalizzazione dell'utente, per la profilazione dei consumatori

Vincitore del bando Ricerca & Innovazione Regione Lombardia 2016, POR-FESR 2014-2020

### 2015–2016 Ideatore e Project Manager

H-DATA S.r.l.s

Progettazione e sviluppo del social web game GecoCity: a fully connected social serious game to simulating personal ecological footprint.

Selezionato per l'Acceleratore d'Impresa *Innovits*, MIP - School of Management del Politecnico di Milano

## BORSE, SOVVENZIONI & PREMI

2020–2021 Programma STaRs Supporting Talented Researchers 2017-18 Azione 1, Università di Bergamo

2018–2020 Programma STaRs Supporting Talented Researchers 2017-18 Azione 1, Università di Bergamo

2016 €30000, Bando Ricerca & Innovazione Regione Lombardia 2016, POR-FESR 2014-2020

2008–2011 Borsa di Dottorato cofinanziata Università Bicocca, Milano-Pirelli, European Doctorate in Physics and Chemistry of Advanced Materials

2008– Borsa di studio Istituto Universitario di Studi Superiori (IUSS), Università di Pavia, in collaborazione con Università dell'Insubria, Varese

2006–2007 Borsa di studio per il progetto MUSING 2006-2010 (European Project): “Multy Industry semantic based next generation business intelligence”

2007–2008 Borsa di studio per la partecipazione al Master II° in Methods for Managment of Complex Systems, Istituto Universitario di Studi Superiori (IUSS), Università di Pavia

## PUBBLICAZIONI

### PEER REVIEWED

- 2020 Leporini, R. Bertini, C. **Carone Fabiani, F.**, Fuzzy representation of finite-valued quantum gates. *Soft Computing volume 24*, pages 10305–10313 (2020). doi:[10.1007/s00500-020-04870-3](https://doi.org/10.1007/s00500-020-04870-3)
- 2014 **Carone Fabiani, F.** Narducci, D. Cerofolini, G.F. Dynamics of wave packets generated at a finite distance from a scattering step *Universal Journal of Physics and Application* 2(3): 193-199, (2014) doi: [10.13189/ujpa.2014.020308](https://doi.org/10.13189/ujpa.2014.020308)
- 2010 **Carone Fabiani, F.** Fratesi, G. and Brivio, G. Adsorption of H<sub>2</sub>S, HS, S, and H on a stepped Fe(310) surface *Eur. Phys. J. B* 78, 455-460 (2010). doi:[10.1140/epjb/e2010-10616-8](https://doi.org/10.1140/epjb/e2010-10616-8)
- 2007 Cerofolini, G.F. Giussani, A. **Carone Fabiani, F.** Modelli, A. Mascolo, D. Ruggiero, D. Narducci, D. Romano, E. Combined IR and XPS analysis of the native (1 0 0) surface of single crystalline silicon after HFaq etching *Surf. Interface Anal.* 39, 836-844 (2007) doi:[10.1002/sia.2599](https://doi.org/10.1002/sia.2599)

### MONOGRAFIE E PREPRINT

- 2021 **Carone Fabiani, F.** Incidence rate estimation of SARS-COVID-19 via a Polya process scheme: a comparative analysis in Italy and European countries. *arXiv*. [arXiv:2104.11722](https://arxiv.org/abs/2104.11722). Submitted *Scientific Reports* 25/06/2021
- 2020 Baggio, R. **Carone Fabiani, F.** Usare RapidMiner, App.D *Algoritmi per l'Intelligenza Artificiale*, HOEPLI Editore Hoepli, 2020 ISBN 9788820391713. [www.hoeplieditore.it](http://www.hoeplieditore.it).
- 2014 **Carone Fabiani, F.** Adsorption and scattering phenomena in materials science. Tesi di dottorato, Università Bicocca, Milano, <https://boa.unimib.it>

## CONOSCENZE INFORMATICHE

Linguaggi Fortran, C, C++, C-Sharp  
 Programmazione  
 Software MatLab, PapidMiner, R, Excel  
 Elaborazione  
 Sistemi Windows, Linux, Unix  
 Operativi  
 Software Text Tex/Latex, MS Office  
 Editing

## LINGUE

Italiano	Madrelingua
Inglese	Idoneità universitaria

Il sottoscritto FILIPPO CARONE FABIANI ai sensi degli art.46 e 47 DPR 445/2000, consapevole delle sanzioni penali previste dall'art.76 del DPR 445/2000 e successive modificazioni ed integrazioni per le ipotesi di falsità in atti e dichiarazioni mendaci, dichiara sotto la propria responsabilità che quanto riportato nel presente CV corrisponde al vero.

Il sottoscritto dichiara altresì di essere informato, ai sensi del d.lgs. n.196/2003, che i dati personali raccolti saranno trattati anche con strumenti informatici esclusivamente nell'ambito del procedimento per il quale la presente dichiarazione viene resa.

# Curriculum Vitae

## NAME AND LAST NAME

Giordano Da Lozzo

## AFFILIATION

Department of Engineering, Roma Tre University; **Address:** Via della Vasca Navale, 79, 00146, Rome, Italy

## EDUCATION

### ROMA TRE UNIVERSITY

#### PHD IN COMPUTER SCIENCE

**Thesis title:** Planar graphs with vertices in prescribed regions: models, algorithms, and complexity

Doctoral School of Engineering, Section of Informatics and Automation

May 2015 | Rome, IT

#### MASTER OF COMPUTER SCIENCE

**Thesis title:** Analysis and Design of a paradigm for the exploration and the visualization of relational data in mobile environment

Computur Networks Laboratory, Department of Informatics and Automation (DIA)

110/110 cum Laude

May 2010 | Rome, IT

## ACADEMIC AND PROFESSIONAL EXPERIENCE

### ROMA TRE UNIVERSITY

ASSISTANT PROFESSOR (RICERCATORE A TD, ART. 24, C. 3, LETTERA A), DELLA LEGGE 30/12/2010, N.240 )

Feb 2021 - Feb 2024 | Rome, IT

POSTDOCTORAL RESEARCHER (ASSEGNISTA DI RICERCA, ART. 22 DELLA LEGGE 30/12/2010, N. 240)

Oct 2017 - Jan 2021 | Rome, IT

### UNIVERSITY OF CALIFORNIA, IRVINE

ASSISTANT PROJECT SCIENTIST

Oct 2016 - Sept 2017 | Irvine, CA (USA)

### ROMA TRE UNIVERSITY (PARTLY, CHARLES UNIVERSITY OF PRAGUE)

PHD STUDENT AND POSTDOCTORAL RESEARCHER (ASSEGNISTA DI RICERCA, ART. 22, L. 30/12/2010, N. 240)

Jan 2012 - Sept 2016 | Rome, IT

### RIPE NETWORK COORDINATION CENTER

"LEONARDO DA VINCI PROGRAMME" FELLOW

June 2011 - Dec 2011 | Amsterdam, NL

### INTER-UNIVERSITY CONSORTIUM FOR SUPERCOMPUTING APPLICATIONS IN UNIVERSITIES AND RESEARCH (CASPUR)

RESEARCH COLLABORATOR

Feb 2011 - May 2011 | Rome, IT

### GRID COMPUTING LABORATORY, ENGINEERING S.P.A.

INTERN IN THE R&D DIVISION

Oct 2010 - Jan 2011 | Rome, IT

### ROMA TRE UNIVERSITY

RESEARCH COLLABORATOR

June 2010 - Sept 2010 | Rome, IT

## RESEARCH INTERESTS

My research interests are in Algorithm Engineering and Complexity, focused in particular on the theoretical questions arising from the **design and engineering of efficient algorithms for the analysis and visualization of networks**. The study of such questions has revealed to be central in modern, strategic, branches of Computer Science (and beyond) such as **Computer Networks, Data Science, Algorithmics for Big Data, Information Visualization, Digital Humanities, Social Network Analysis, Bioinformatics**, and many more.

Specifically, my primary area of research lies in **Graph Drawing**, a research field at the intersection of the areas of Computational Geometry, Combinatorial Optimization, Discrete Mathematics, and Graph Theory. Graph Drawing investigates algorithms and bounds to construct geometric and topological representations of graphs. My secondary area of research lies in **Computational Geometry** and **Graph Theory**. Computational Geometry is concerned with data structures and algorithms for solving problems exhibiting a geometric nature and with the numerical and computational issues related to the implementation of such algorithms. Applications of computational geometry include (but are not limited to) Robotics, Geographic Information Systems, Integrated Circuit Design, Computer-Aided Engineering, and Computer Vision. Graph Theory problems are concerned with the study of the properties of abstract graphs, both under the lenses of combinatorics and algorithmic complexity. Graph Theory finds applications in several areas of Science, including Computer Science, Physics, Chemistry, Biology, and Mathematics.

My research efforts revolve around the design and engineering of algorithms to construct representations of graphs with nice readability properties. I am deeply attracted by both combinatorial and geometric questions related to the representation of networks, especially those concerned with planarity and constrained graph embeddings in the plane and higher genus surfaces. I am involved in research projects exploring theoretical questions about the visualization of large and evolving networks, graph stories, big graphs and big data, graph databases, topological graph theory, visualizations for cybersecurity, knowledge graphs and knowledge representation, layouts of simultaneous and clustered networks, human-computer interaction, contact and hybrid representations of real-world graphs.

## AWARDS

- 2019 Best Paper at IPEC 2019
- 2016 Best Paper at SOFSEM 2016
- 2015 Best Poster at GD 2016
- 2011 Best MS thesis by AICA-Confindustria
- 2011 "Leonardo da Vinci Programme" Scholarship

## RESEARCH PROJECTS

2019 - 2021	AHeAD "efficient Algorithms for HArnessing networked Data" <b>Role 1:</b> Work Package Leader <b>Role 2:</b> Research associate, employed within the project	MIUR (PRIN17)
2017 - 2019	MODE "MOrphing graph Drawings Efficiently" <b>Role:</b> Participant	MIUR (PRIN15)
2017 - 2019	MIUR-DAAD JMP N° 34120 "Algorithms and Models for Hybrid Representations of Locally-Dense Large Networks" <b>Role:</b> Participant	MIUR-DAAD Joint Mobility Program
2016 - 2017	STAC "The Space-Time Analysis for Cybersecurity program" <b>Role:</b> Assistant project scientist, employed within the project	U.S. DARPA
2014 - 2016	AMANDA "Algorithmics for MAssive and Networked DAta" <b>Role:</b> Research associate, employed within the project	MIUR (PRIN12)
2012 - 2014	LEONE "From global measurements to local management" <b>Role:</b> Research associate, employed within the project	EU FP7 STREP
2010 - 2013	GraDr "Graph Drawing and Representation" <b>Role:</b> Participant	EuroGIGA
2010 - 2012	AlgoDEEP "Algorithmic challenges for Data-intensivE processing on Emerging computing Platforms" <b>Role:</b> Participant	MIUR (PRIN08)

## RELEVANT ROLES IN PROJECTS OF NATIONAL INTEREST

- Work Package Leader of the WP2: "Engineering new algorithms for social networks" for Project AHeAD "efficient Algorithms for HArnessing networked Data" (**MIUR PRIN 2017**).

## RESEARCH STAYS

Sept 2016-Sept 2017	UC Irvine (Full-time Assistant Project Scientist - Step III )	California, USA
Dec 2019	Universität Tübingen (Visiting scholar fellow)	Germany
Jul 2018	Universität Tübingen (Visiting researcher)	Germany
Mar 2017	Universität Tübingen (Visiting researcher)	Germany
Mar 2017	Technische Universiteit Eindhoven (Visiting researcher)	The Netherlands
Nov 2014	Karlsruhe Institute of Technology (Visiting researcher)	Germany
Oct 2013 - Feb 2014	Charles University of Prague (Research fellow)	Czech Republic
Jun 2011 - Jan 2012	RIPE Network Coordination Center (Research fellow)	The Netherlands

## TEACHING EXPERIENCE

### PHD COURSES

2021	Co-teacher	Algorithmic Tools for Massive Network Analytics (16 hours) <b>website:</b> <a href="https://sites.google.com/view/algtools">https://sites.google.com/view/algtools</a>
2020	Main teacher	Algorithms for Big Data (10 hours) <b>website:</b> <a href="https://uniroma3.gitlab.io/computnet/gd/abd-phdcourse">https://uniroma3.gitlab.io/computnet/gd/abd-phdcourse</a>

### MASTER'S COURSES

2021-2022	Teacher	Algorithms for Big Data (2 CFU/6 CFU)
2020-2021	Teacher	Algorithms for Big Data (2 CFU/6 CFU)
2019-2020	Lecturer & Teaching Assitant	Theoretical Computer Science I and II
2019-2020	Lecturer & Teaching Assitant	Information Visualization
2018-2019	Lecturer & Teaching Assitant	Theoretical Computer Science I and II
2018-2019	Lecturer & Teaching Assitant	Information Visualization
2017-2018	Lecturer & Teaching Assitant	Theoretical Computer Science I and II
2015-2016	Lecturer & Teaching Assitant	Theoretical Computer Science I and II
2015-2016	Lecturer & Teaching Assitant	Information Visualization
2014-2015	Lecturer & Teaching Assitant	Information Visualization
2013-2014	Lecturer & Teaching Assitant	Information Visualization

### BACHELOR'S COURSES

2021-2022	Teacher	Elements of Computer Science and Linear Algebra (9 CFU)
2020-2021	Teacher	Elements of Computer Science and Linear Algebra (9 CFU)
2019-2020	Lecturer & Teaching Assitant	Foundations of Computer Science
2018-2019	Lecturer & Teaching Assitant	Foundations of Computer Science
2017-2018	Lecturer & Teaching Assitant	Foundations of Computer Science

## UNIVERSITY SERVICE

2021-present	Member of the Faculty Committee of the XXXVII cycle ("XXXVII ciclo") of the PhD program in Computer and Automation Engineering	Roma Tre University
2021-present	Member of the Faculty Committee of the Bachelor's/Master's degree program in Computer and Automation Engineering	Roma Tre University
2021-present	Member of the Faculty Committee of the Bachelor's degree program in Marine Technologies Engineering	Roma Tre University

## (CO-)SUPERVISED STUDENTS

2020	Fabrizio Grosso	Algorithms for the Visualization of Graphs on a Stream
2015	Francesco Elefante	Design of a Visualization System for Geo-referenced Graphs

## JOURNAL EDITORSHIP

2021 Guest editors: Special Issue on “Parameterized and Approximation Algorithms in Graph Drawing” of the Journal of Graph Algorithms and Applications (JGAA)  
G. Da Lozzo and  
P. Kindermann Call for papers: <https://jgaa.info/docs/cfp-param-algo.pdf>

## WORKSHOP ORGANIZATION

31 Sept, 2021 – 5 Aug 2021 Co-organized with Summer Workshop on Graph Drawing (SWGD 2021)  
Patrignani M. and **website:** <http://www.dia.uniroma3.it/~dalozzo/SWGD2021/>  
Frati F. Location: Castiglione del Lago, PG, Italy

## SERVICE TO THE COMMUNITY

### PROGRAM COMMITTEES

2022 34th Canadian Conference on Computational Geometry (CCCG 2022)  
2022 38th European Workshop on Computational Geometry (EuroCG 2022)  
2021 16th International Symposium on Algorithms and Data Structures (WADS'21)  
2019 27th International Symposium on Graph Drawing and Network Visualization (GD'19)  
2017 25th International Symposium on Graph Drawing and Network Visualization (GD'17)

### REFeree WORK

Project Funding: Czech Science Foundation (GA CR)

Journals: ACM Transactions on Algorithms (TALG), Algorithmica, Theoretical Computer Science (TCS), Journal of Graph Algorithms and Applications (JGAA), Journal of Visual Languages & Computing (JVLC), and Computational Geometry: Theory and Applications (CGTA)

Conferences: European Symposium on Algorithms (ESA), Symposium on Computational Geometry (SoCG), International Symposium on Graph Drawing & Network Visualization (GD), International Symposium on Algorithms and Computation (ISAAC), European Workshop on Computational Geometry (EuroCG), Canadian Conference on Computational Geometry (CCCG), International Conference on Algorithms and Discrete Applied Mathematics (CALDAM), and Symposium on Experimental Algorithms (SEA).  
**Editions:** CCCG 2022, EuroCG 2022, WADS 2021, GD 2020, ESA 2020 (Track A), EuroCG 2020, ESA 2019 (Track A), GD 2018, SoCG 2018, GD 2012, ISAAC 2017, EuroCG 2017, CIAC 2017, ISAAC 2016, GD 2016, CALDAM 2016, GD 2015, CALDAM 2015, ISAAC 2014, GD 2014, ESA 2014 (Track A), WALCOM 2014, GD 2013, and SEA 2013.

## INVITATION-ONLY WORKSHOPS

Mar 2022	Bertinoro Workshop on Graph Drawing (BWGD'22)	Bertinoro, IT
Sep 2021	Summer Workshop on Graph Drawing (SWGD '21)	Castiglione del Lago, IT
Feb 2021	Dagstuhl Seminar “Parameterized Complexity in Graph Drawing”	Dagstuhl, DE
Mar 2021	Bertinoro Workshop on Graph Drawing (BWGD'21)	Bertinoro, IT
Feb 2019	Workshop on Graph and Network Visualization (GNV'2019)	Heiligkreuztal, DE
Mar 2019	Bertinoro Workshop on Graph Drawing (BWGD'19)	Bertinoro, IT
Mar 2019	Dagstuhl Seminar “Beyond-Planar Graphs: Algorithmics and Combinatorics”	Dagstuhl, DE
Jul 2018	Workshop on Graph and Network Visualization (GNV'2018)	Heiligkreuztal, DE
Mar 2018	Bertinoro Workshop on Graph Drawing (BWGD'18)	Bertinoro, IT
Jun 2017	MRC Conference on Beyond Planarity: Crossing Numbers of Graphs	Snowbird, UT USA
Mar 2017	Bertinoro Workshop on Graph Drawing (BWGD'17)	Bertinoro, IT
Nov 2016	Dagstuhl Seminar “Beyond-Planar Graphs: Algorithmics and Combinatorics”	Dagstuhl, DE
Mar 2016	Bertinoro Workshop on Graph Drawing (BWGD'16)	Bertinoro, IT
Mar 2015	Bertinoro Workshop on Graph Drawing (BWGD'15)	Bertinoro, IT
Mar 2014	Bertinoro Workshop on Graph Drawing (BWGD'14)	Bertinoro, IT
Mar 2013	Bertinoro Workshop on Graph Drawing (BWGD'13)	Bertinoro, IT

## INVITED TALKS

2021	How to draw a graph: a gentle introduction to Graph Drawing	LUISS University, Rome, IT
------	---	-------------------------------

## CONFERENCE TALKS

SODA'21	2-Level Quasi-Planarity or How Caterpillars Climb (SPQR-)Trees	Alexandria, VA, USA
COCOON'20	On the Area Requirements of Planar Greedy Drawings of Triconnected Planar Graphs	Atlanta, GA, USA
GD'19	Graph Stories in Small Area	Prague, CZ
IWOCA'19	Reaching 3-Connectivity via Edge-edge Additions	Pisa, IT
ISAAC'18	Approximation Algorithms for Facial Cycles in Planar Embeddings	Jiaoxi, TW
GD'16	Beyond Level Planarity	Athens, GR
GD'15	Intersection-Link Representations of Graphs	Los Angeles, CA
GD'15	On the Relationship between Map Graphs and Clique Planar Graphs	Los Angeles, CA
CIAC'15	Planarity of Streamed Graphs	Paris, FR
ISAAC'14	Planar Embeddings with Small and Uniform Faces	Jeonju, KR
GD'14	The Importance of Being Proper (In Clustered-Level Planarity and T-Level Planarity)	Würzburg, DE
ICGT'14	SEFE = C-Planarity?	Grenoble, FR
GD'13	Drawing Non-planar Graphs with Crossing-free Subgraphs	Bordeaux, FR
WIV'12	Visual discovery of the correlation between BGP routing and round trip delay active measurements	Boston, MA

## ATTENDED PH.D. SCHOOLS AND DOCTORAL COURSES

Sept 2018	Recent trends in Graph Drawing and Network Visualization" (taught by Patrizio Angelini, David Auber, Anna Lubiw, Hans-Jörg Schulz)	Barcelona, ES
Sept 2014	EuroGIGA PhD School: "Recent Trends in Graph Drawing – Curves, Crossings, and Constraints" (taught by David Eppstein, Fabrizio Frati, Stephen Kobourov, Maarten Löffler, Ignaz Rutter, André Schulz)	Würzburg, DE
June 2013	Computational Geometry and Graph Drawing (taught by Alexander Wolf and Maurizio Patrignani)	Rome, IT
Nov 2013	The Tutte Polynomial (taught by Jaroslav Nešetřil and Andrew Goodall)	Prague, CZ
Jul 2013	Algorithmic Graph Theory (taught by Flavia Bonomo)	Rome, Italy
Feb 2013	Readings in Network Visualization (taught by Giuseppe Di Battista and Ioannis G. Tollis)	Rome, IT
Oct 2012	EuroGIGA Fall School 2012: "Graph- and GeoVisualization" (taught by Maurizio Patrignani, Martin Höllberg, Christophe Hurter, Jan-Henrik Haurert)	Würzburg, DE
Aug 2012	13th Max Planck Advanced Course on the Foundations of Computer Science (taught by Luca Trevisan, Berthold Vöcking, Avi Wigderson)	Saarbrücken, DE





## COMPUTER SKILLS

DBMS and query languages	DB2, PostgreSQL, MySQL, HSQLDB, SQLite, FQL, XQuery, XPath
Front-end and visualization	JavaScript libraries (D3.js, Vue, Angular, React, jQuery, Raphaël, Paper.js), Node.js sever platform (Express, Socket.IO, Redis.IO), SVG, HTML5 Canvas, OpenGL, OpenGL ES, WebGL (Three.js)
Programming languages	Java, J2EE (Jsp, Servlet), C, Objective-C, Python, PLaSM, MATLAB, JavaScript, TypeScript, Bash scripting, Turbo Pascal, Prolog, Golog, OCaml
Operating systems	Mac OS X, GNU/Linux distributions, MS Windows, Android OS, iOS
Cloud technologies systems	Google App Engine, Microsoft Windows Azure, force.com
Libraries for concurrent programming	POSIX Threads Programming, java.util.concurrent
Frameworks	NetworkX, NumPySciPy, Pandas, Java Plugin Framework (JPF), Apache Struts, Google Android SDK, Java Swing, Socket Programming, Facebook Graph API, Google Social Graph API
Markup and typesetting	LATEX2, BIBTEX2, Markdown, Gnuplot

# List of Publications

<http://www.dia.uniroma3.it/~dalozzo> [giordano.dalozzo@uniroma3.it](mailto:giordano.dalozzo@uniroma3.it)

## Links to Bibliographic Information

	Orcid	<a href="http://orcid.org/0000-0003-2396-5174">http://orcid.org/0000-0003-2396-5174</a>
	DBLP	<a href="https://dblp.uni-trier.de/pers/hd/l/Lozzo:Giordano_Da">https://dblp.uni-trier.de/pers/hd/l/Lozzo:Giordano_Da</a>
	Google Scholar	<a href="http://scholar.google.com/citations?user=2f0iSvUAAAAJ&amp;hl=en">http://scholar.google.com/citations?user=2f0iSvUAAAAJ&amp;hl=en</a>
	Homepage	<a href="http://www.dia.uniroma3.it/~dalozzo">http://www.dia.uniroma3.it/~dalozzo</a>

## Metrics Overview

Documents:	71	
Citations:	557	[source: Google Scholar – Dec 05, 2021]
H-index:	13	[source: Google Scholar – Dec 05, 2021]
i10-index:	19	[source: Google Scholar – Dec 05, 2021]

## PhD thesis and Book Chapters

- [1] Patrizio Angelini and Giordano Da Lozzo. Beyond clustered planar graphs. In Seok-Hee Hong and Takeshi Tokuyama, editors, Beyond Planar Graphs, Communications of NII Shonan Meeting, pages 211–235. Springer, 2020.
- [2] Giordano Da Lozzo. Planar Graphs with Vertices in Prescribed Regions: models, algorithms, and complexity. PhD thesis, Università degli Studi di Roma “Roma Tre”, Dottorato di Ricerca in Ingegneria, Sezione Informatica ed Automazione, XXVII Ciclo, 2015.

## Refereed Journal Articles

- [3] Fidel Barrera-Cruz, Manuel Borrazzo, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. How to morph a tree on a small grid. Discrete and Computational Geometry, 2021. To Appear.
- [4] Giordano Da Lozzo, David Eppstein, Michael J. Goodrich, and Siddharth Gupta. C-planarity testing of embedded clustered graphs with bounded dual carving-width. Algorithmica, 83(8):2471–2502, 2021.
- [5] Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. Upward planar morphs. Algorithmica, 82(10):2985–3017, 2020.
- [6] Giordano Da Lozzo, Giuseppe Di Battista, and Fabrizio Frati. Extending upward planar graph drawings. Comput. Geom., 91:101668, 2020.
- [7] Giordano Da Lozzo, Anthony D’Angelo, and Fabrizio Frati. On planar greedy drawings of 3-connected planar graphs. Discret. Comput. Geom., 63(1):144–157, 2020.
- [8] Patrizio Angelini, Michael A. Bekos, Franz J. Brandenburg, Giordano Da Lozzo, Giuseppe Di Battista, Walter Didimo, Michael Hoffmann, Giuseppe Liotta, Fabrizio Montecchiani, Ignaz Rutter, and Csaba D. Tóth. Simple  $k$ -planar graphs are simple  $((k+1)$ -quasiplanar. J. Comb. Theory, Ser. B, 142:1–35, 2020.
- [9] Patrizio Angelini and Giordano Da Lozzo. Clustered planarity with pipes. Algorithmica, 81(6):2484–2526, 2019.
- [10] Giordano Da Lozzo and Ignaz Rutter. Planarity of streamed graphs. Theor. Comput. Sci., 799:1–21, 2019.
- [11] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Ignaz Rutter. Beyond level planarity: Cyclic, torus, and simultaneous level planarity. Theor. Comput. Sci., 804:161–170, 2020.
- [12] Manuel Borrazzo, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Graph stories in small area. J. Graph Algorithms Appl., 24(3):269–292, 2020.

- [13] Robin Anderson, Shuliang Bai, Fidel Barrera-Cruz, Éva Czabarka, Giordano Da Lozzo, Natalie L. F. Hobson, Jephian C.-H. Lin, Austin Mohr, Heather C. Smith, László A. Székely, and Hays Whitlatch. Analogies between the crossing number and the tangle crossing number. *Electr. J. Comb.*, 25(4):P4.24, 2018.
- [14] Patrizio Angelini, Giordano Da Lozzo, Marco Di Bartolomeo, Valentino Di Donato, Maurizio Patrignani, Vincenzo Roselli, and Ioannis G. Tollis. Algorithms and bounds for L-drawings of directed graphs. *Int. J. Found. Comput. Sci.*, 29(4):461–480, 2018.
- [15] Patrizio Angelini and Giordano Da Lozzo. 3-coloring arrangements of line segments with 4 slopes is hard. *Inf. Process. Lett.*, 137:47–50, 2018.
- [16] Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Computing node-trix representations of clustered graphs. *J. Graph Algorithms Appl.*, 22(2):139–176, 2018.
- [17] Giordano Da Lozzo, Vida Dujmovic, Fabrizio Frati, Tamara Mchedlidze, and Vincenzo Roselli. Drawing planar graphs with many collinear vertices. *JoCG*, 9(1):94–130, 2018.
- [18] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Valentino Di Donato, Philipp Kindermann, Günter Rote, and Ignaz Rutter. Windrose planarity: Embedding graphs with direction-constrained edges. *ACM Trans. Algorithms*, 14(4):54:1–54:24, 2018.
- [19] Soroush Alamdari, Patrizio Angelini, Fidel Barrera-Cruz, Timothy M. Chan, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Penny Haxell, Anna Lubiw, Maurizio Patrignani, Vincenzo Roselli, Sahil Singla, and Bryan T. Wilkinson. How to morph planar graph drawings. *SIAM J. Comput.*, 46(2):824–852, 2017.
- [20] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, and Fabrizio Frati. Strip planarity testing for embedded planar graphs. *Algorithmica*, 77(4):1022–1059, 2017.
- [21] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Ignaz Rutter. Intersection-link representations of graphs. *Journal of Graph Algorithms and Applications*, 21(4):731–755, 2017.
- [22] Patrizio Angelini and Giordano Da Lozzo. SEFE = c-planarity? *The Computer Journal*, 59(12):1831–1838, 2016.
- [23] Patrizio Angelini, Carla Binucci, Giordano Da Lozzo, Walter Didimo, Luca Grilli, Fabrizio Montecchiani, Maurizio Patrignani, and Ioannis Tollis. Algorithms and bounds for drawing non-planar graphs with crossing-free subgraphs. *Computational Geometry: Theory and Applications*, 50:34–48, 2015.
- [24] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. Relaxing the constraints of clustered planarity. *Computational Geometry: Theory and Applications*, 48(2):42–75, 2015.
- [25] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Vincenzo Roselli. The importance of being proper: (in clustered-level planarity and t-level planarity). *Theoretical Computer Science*, 571:1–9, 2015.
- [26] Patrizio Angelini, Giordano Da Lozzo, and Daniel Neuwirth. Advancements on SEFE and partitioned book embedding problems. *Theoretical Computer Science*, 575:71–89, 2015.
- [27] Giordano Da Lozzo, Giuseppe Di Battista, and Claudio Squarcella. Visual discovery of the correlation between BGP routing and round-trip delay active measurements. *Computing*, 96(1):67–77, 2014.
- [28] Giordano Da Lozzo, Giuseppe Di Battista, and Francesco Ingrassia. Drawing graphs on a smartphone. *Journal of Graph Algorithms and Applications*, 16(1):109–126, 2012.

## Refereed Conference Publications

- [29] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. 2-level quasi-planarity or how caterpillars climb (spqr-)trees. In Dániel Marx, editor, *Proceedings of the 2021 ACM-SIAM Symposium on Discrete Algorithms, SODA 2021, Virtual Conference, January 10 - 13, 2021*, pages 2779–2798. SIAM, 2021.
- [30] Steven Chaplick, Giordano Da Lozzo, Emilio Di Giacomo, Giuseppe Liotta, and Fabrizio Montecchiani. Planar drawings with few slopes of halin graphs and nested pseudotrees. In Anna Lubiw and Mohammad R. Salavatipour, editors, *Algorithms and Data Structures - 17th International Symposium, WADS 2021, Virtual Event, August 9-11, 2021, Proceedings*, volume 12808 of *Lecture Notes in Computer Science*, pages 271–285. Springer, 2021.
- [31] Sujoy Bhore, Giordano Da Lozzo, Fabrizio Montecchiani, and Martin Nöllenburg. On the upward book thickness problem: Combinatorial and complexity results. In Helen Purchase and Ignaz Rutter, editors, *Proc. 29th International Symposium on Graph Drawing and Network Visualization (GD 2021)*. Springer, 2021. To Appear.
- [32] Carlos Alegría, Manuel Borrasso, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Planar straight-line realizations of 2-trees with prescribed edge lengths. In Helen Purchase and Ignaz Rutter, editors, *Proc. 29th International Symposium on Graph Drawing and Network Visualization (GD 2021)*. Springer, 2021. To Appear.

- [33] Giordano Da Lozzo, Anthony D'Angelo, and Fabrizio Frati. On the area requirements of planar greedy drawings of triconnected planar graphs. In Donghyun Kim, R. N. Uma, Zhipeng Cai, and Dong Hoon Lee, editors, Computing and Combinatorics - 26th International Conference, COCOON 2020, Atlanta, GA, USA, August 29-31, 2020, Proceedings, volume 12273 of LNCS, pages 435–447. Springer, 2020.
- [34] Michael A. Bekos, Giordano Da Lozzo, Svenja Griesbach, Martin Gronemann, Fabrizio Montecchiani, and Chrysanthi N. Raftopoulou. Book embeddings of nonplanar graphs with small faces in few pages. In Sergio Cabello and Danny Z. Chen, editors, 36th International Symposium on Computational Geometry, SoCG 2020, June 23-26, 2020, Zürich, Switzerland, volume 164 of LIPIcs, pages 16:1–16:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2020.
- [35] Giordano Da Lozzo, David Eppstein, Michael T. Goodrich, and Siddharth Gupta. C-planarity testing of embedded clustered graphs with bounded dual carving-width. In Bart M. P. Jansen and Jan Arne Telle, editors, 14th International Symposium on Parameterized and Exact Computation, IPEC 2019, September 11-13, 2019, Munich, Germany, volume 148 of LIPIcs, pages 9:1–9:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2019. *Best paper.*
- [36] Juan José Besa Vial, Giordano Da Lozzo, and Michael T. Goodrich. Computing k-modal embeddings of planar digraphs. In Michael A. Bender, Ola Svensson, and Grzegorz Herman, editors, 27th Annual European Symposium on Algorithms, ESA 2019, September 9-11, 2019, Munich/Garching, Germany, volume 144 of LIPIcs, pages 19:1–19:18. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2019.
- [37] Manuel Borrizzo, Giordano Da Lozzo, Fabrizio Frati, and Maurizio Patrignani. Graph stories in small area. In Daniel Archambault and Csaba D. Tóth, editors, Graph Drawing and Network Visualization - 27th International Symposium, GD 2019, Prague, Czech Republic, September 17-20, 2019, Proceedings, volume 11904 of LNCS, pages 545–558. Springer, 2019.
- [38] Patrizio Angelini, Steven Chaplick, Sabine Cornelsen, Giordano Da Lozzo, and Vincenzo Roselli. Morphing contact representations of graphs. In Gill Barequet and Yusu Wang, editors, 35th International Symposium on Computational Geometry, SoCG 2019, June 18-21, 2019, Portland, Oregon, USA, volume 129 of LIPIcs, pages 10:1–10:16. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2019.
- [39] Carla Binucci, Giordano Da Lozzo, Emilio Di Giacomo, Walter Didimo, Tamara Mchedlidze, and Maurizio Patrignani. Upward book embeddings of st-graphs. In Gill Barequet and Yusu Wang, editors, 35th International Symposium on Computational Geometry, SoCG 2019, June 18-21, 2019, Portland, Oregon, USA, volume 129 of LIPIcs, pages 13:1–13:22. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2019.
- [40] Giordano Da Lozzo and Ignaz Rutter. Reaching 3-connectivity via edge-edge additions. In Charles J. Colbourn, Roberto Grossi, and Nadia Pisanti, editors, Combinatorial Algorithms - 30th International Workshop, IWOCA 2019, Pisa, Italy, July 23-25, 2019, Proceedings, volume 11638 of LNCS, pages 175–187. Springer, 2019.
- [41] Fidel Barrera-Cruz, Manuel Borrizzo, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. How to morph a tree on a small grid. In Zachary Friggstad, Jörg-Rüdiger Sack, and Mohammad R. Salavatipour, editors, Algorithms and Data Structures - 16th International Symposium, WADS 2019, Edmonton, AB, Canada, August 5-7, 2019, Proceedings, volume 11646 of LNCS, pages 57–70. Springer, 2019.
- [42] Giordano Da Lozzo, Giuseppe Di Battista, and Fabrizio Frati. Extending upward planar graph drawings. In Zachary Friggstad, Jörg-Rüdiger Sack, and Mohammad R. Salavatipour, editors, Algorithms and Data Structures - 16th International Symposium, WADS 2019, Edmonton, AB, Canada, August 5-7, 2019, Proceedings, volume 11646 of LNCS, pages 339–352. Springer, 2019.
- [43] Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. Upward planar morphs. In Therese C. Biedl and Andreas Kerren, editors, Graph Drawing and Network Visualization - 26th International Symposium, GD 2018, Barcelona, Spain, September 26-28, 2018, Proceedings, volume 11282 of LNCS, pages 92–105. Springer, 2018.
- [44] Giordano Da Lozzo and Ignaz Rutter. Approximation algorithms for facial cycles in planar embeddings. In Wen-Lian Hsu, Der-Tsai Lee, and Chung-Shou Liao, editors, 29th International Symposium on Algorithms and Computation, ISAAC 2018, December 16-19, 2018, Jiaoxi, Yilan, Taiwan, volume 123 of LIPIcs, pages 41:1–41:13. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2018.
- [45] Giordano Da Lozzo, David Eppstein, Michael T. Goodrich, and Siddharth Gupta. Subexponential-time and FPT algorithms for embedded flat clustered planarity. In Andreas Brandstädt, Ekkehard Köhler, and Klaus Meer, editors, Graph-Theoretic Concepts in Computer Science - 44th International Workshop, WG 2018, Cottbus, Germany, June 27-29, 2018, Proceedings, volume 11159 of LNCS, pages 111–124. Springer, 2018.
- [46] Giordano Da Lozzo, William E. Devanny, David Eppstein, and Timothy Johnson. Square-contact representations of partial 2-trees and triconnected simply-nested graphs. In ISAAC, volume 92 of LIPIcs, pages 24:1–24:14. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2017.
- [47] Steven Chaplick, Markus Chimani, Sabine Cornelsen, Giordano Da Lozzo, Martin Nöllenburg, Maurizio Patrignani, Ioannis G. Tollis, and Alexander Wolff. Planar l-drawings of directed graphs. In Graph Drawing, volume 10692 of LNCS, pages 465–478. Springer, 2017.

- [48] Patrizio Angelini, Michael A. Bekos, Franz J. Brandenburg, Giordano Da Lozzo, Giuseppe Di Battista, Walter Didimo, Giuseppe Liotta, Fabrizio Montecchiani, and Ignaz Rutter. On the relationship between  $k$ -planar and  $k$ -quasi-planar graphs. In WG, volume 10520 of LNCS, pages 59–74. Springer, 2017.
- [49] Patrizio Angelini, Michael A. Bekos, Franz J. Brandenburg, Giordano Da Lozzo, Giuseppe Di Battista, Walter Didimo, Giuseppe Liotta, Fabrizio Montecchiani, and Ignaz Rutter. On the relationship between  $k$ -planar and  $k$ -quasi planar graphs. In (Informal) Proceedings of the 33rd European Workshop on Computational Geometry, Malmo, Sweden, April 5-7, 2017, 2017.
- [50] Giordano Da Lozzo, Anthony D'Angelo, and Fabrizio Frati. On planar greedy drawings of 3-connected planar graphs. In Symposium on Computational Geometry, volume 77 of LIPIcs, pages 33:1–33:16. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2017.
- [51] Patrizio Angelini and Giordano Da Lozzo. Clustered planarity with pipes. In Seok-Hee Hong, editor, 27th International Symposium on Algorithms and Computation, ISAAC 2016, December 12-14, 2016, Sydney, Australia, volume 64 of LIPIcs, pages 13:1–13:13. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2016.
- [52] Giordano Da Lozzo, Vida Dujmovic, Fabrizio Frati, Tamara Mchedlidze, and Vincenzo Roselli. Drawing planar graphs with many collinear vertices. In Graph Drawing, volume 9801 of LNCS, pages 152–165. Springer, 2016.
- [53] Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Computing node-trix representations of clustered graphs. In Graph Drawing, volume 9801 of LNCS, pages 107–120. Springer, 2016.
- [54] Patrizio Angelini, Steven Chaplick, Sabine Cornelsen, Giordano Da Lozzo, Giuseppe Di Battista, Peter Eades, Philipp Kindermann, Jan Kratochvíl, Fabian Lipp, and Ignaz Rutter. Simultaneous orthogonal planarity. In Graph Drawing, volume 9801 of LNCS, pages 532–545. Springer, 2016.
- [55] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Ignaz Rutter. Beyond Level Planarity. In Graph Drawing, volume 9801 of LNCS, pages 482–495. Springer, 2016.
- [56] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Valentino Di Donato, Philipp Kindermann, Günter Rote, and Ignaz Rutter. Windrose planarity: Embedding graphs with direction-constrained edges. In SODA, pages 985–996. SIAM, 2016.
- [57] Patrizio Angelini, Giordano Da Lozzo, Marco Di Bartolomeo, Valentino Di Donato, Maurizio Patrignani, Vincenzo Roselli, and Ioannis G. Tollis. L-drawings of directed graphs. In SOFSEM, LNCS. *Best paper*.
- [58] Patrizio Angelini, Giordano Da Lozzo, Fabrizio Frati, Anna Lubiw, Maurizio Patrignani, and Vincenzo Roselli. Optimal morphs of convex drawings. In Lars Arge and János Pach, editors, 31st International Symposium on Computational Geometry, SoCG 2015, June 22-25, 2015, Eindhoven, The Netherlands, volume 34 of LIPIcs, pages 126–140. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2015.
- [59] Giordano Da Lozzo and Ignaz Rutter. Planarity of streamed graphs. In Algorithms and Complexity - 9th International Conference, CIAC 2015, Paris, France, May 20-22, 2015. Proceedings, LNCS, pages 153–166, 2015.
- [60] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Ignaz Rutter. Intersection-link representations of graphs. In Graph Drawing - 23rd International Symposium, GD 2015, Los Angeles, CA, September 24-26, 2015, Revised Selected Papers, LNCS, pages 217–230, 2015.
- [61] Giordano Da Lozzo, Marco Di Bartolomeo, Maurizio Patrignani, Giuseppe Di Battista, Davide Cannone, and Sergio Tortora. Drawing georeferenced graphs: combining graph drawing and geographic data. In José Braz, Andreas Kerren, and Lars Linsen, editors, IVAPP 2015 - Proceedings of the 6th International Conference on Information Visualization Theory and Applications, Berlin, Germany, 11-14 March, 2015., pages 109–116. SciTePress, 2015.
- [62] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Vincenzo Roselli. The importance of being proper: (in clustered-level planarity and  $t$ -level planarity). In Christian A. Duncan and Antonios Symvonis, editors, Graph Drawing - 22nd International Symposium, GD 2014, Würzburg, Germany, September 24-26, 2014, Revised Selected Papers, volume 8871 of LNCS, pages 246–258. Springer, 2014.
- [63] Patrizio Angelini, Giordano Da Lozzo, Marco Di Bartolomeo, Giuseppe Di Battista, Seok-Hee Hong, Maurizio Patrignani, and Vincenzo Roselli. Anchored drawings of planar graphs. In Graph Drawing - 22nd International Symposium, GD 2014, Würzburg, Germany, September 24-26, 2014, Revised Selected Papers, LNCS, pages 404–415, 2014.
- [64] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. Morphing planar graph drawings optimally. In Automata, Languages, and Programming - 41st International Colloquium, ICALP 2014, Copenhagen, Denmark, July 8-11, 2014, Proceedings, Part I, LNCS, pages 126–137, 2014.
- [65] Giordano Da Lozzo, Vít Jelínek, Jan Kratochvíl, and Ignaz Rutter. Planar embeddings with small and uniform faces. In Algorithms and Computation - 25th International Symposium, ISAAC 2014, Jeonju, Korea, December 15-17, 2014, Proceedings, LNCS, pages 633–645, 2014.

- [66] Patrizio Angelini, Giordano Da Lozzo, and Daniel Neuwirth. On some np-complete SEFE problems. In Algorithms and Computation - 8th International Workshop, WALCOM 2014, Chennai, India, February 13-15, 2014, Proceedings, LNCS, pages 200–212, 2014.
- [67] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, and Fabrizio Frati. Strip planarity testing. In Graph Drawing - 21st International Symposium, GD 2013, Bordeaux, France, September 23-25, 2013, Revised Selected Papers, LNCS, pages 37–48, 2013.
- [68] Patrizio Angelini, Carla Binucci, Giordano Da Lozzo, Walter Didimo, Luca Grilli, Fabrizio Montecchiani, Maurizio Patrignani, and Ioannis G. Tollis. Drawing non-planar graphs with crossing-free subgraphs. In Graph Drawing - 21st International Symposium, GD 2013, Bordeaux, France, September 23-25, 2013, Revised Selected Papers, LNCS, pages 292–303, 2013.
- [69] Giordano Da Lozzo, Giuseppe Di Battista, and Francesco Ingrassia. Drawing graphs on a smartphone. In Graph Drawing - 18th International Symposium, GD 2010, Konstanz, Germany, September 21-24, 2010. Revised Selected Papers, LNCS, pages 153–164, 2010.

## Posters

- [70] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Ignaz Rutter. On the relationship between map graphs and clique planar graphs. In Emilio Di Giacomo and Anna Lubiw, editors, Proc. 23rd International Symposium on Graph Drawing and Network Visualization (GD '15), LNCS, 2015. Best poster.
- [71] Giordano Da Lozzo, Giuseppe Di Battista, and Claudio Squarcella. Visual discovery of the correlation between bgp routing and round-trip delay active measurements. In 1st IMC Workshop on Internet Visualization (WIV 2012), 2012.

# Curriculum vitae di Fabio D'Andreagiovanni

## Informazioni Personali

Nome: Fabio  
Cognome: D'Andreagiovanni  
Data di nascita: [REDACTED]  
Luogo di Nascita: [REDACTED]  
Cittadinanza: [REDACTED]  
Indirizzo di residenza : [REDACTED]  
Numero di cellulare: [REDACTED]  
PEC: [REDACTED]  
Email: [REDACTED]

## Posizione ricoperta attualmente

Dal 10/2016

**"CHARGÉ DE RECHERCHE"** (posizione di ricercatore a TEMPO INDETERMINATO corrispondente ad una posizione di Professore Associato secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR)

**Centre National de la Recherche Scientifique (CNRS)**, Francia

(assunto con il grado superiore di "Première Classe (CR1)" (Prima Classe) e convertito al grado di "Classe Normale (CRCN)" (Classe Normale) nel 10/2017, a seguito della riforma che ha fuso i gradi di Prima Classe (CR1) e Seconda Classe (CR2) nella Classe Normale).

Afferente all'**Institute for Information Sciences and Technologies (INS2I)**, assegnato al **Laboratorio di Ricerca HEUDIASYC** ("HEUristique et DIAgnostic des SYstèmes Complexes" - UMR CNRS 7253) e **Docente** del **Département Génie Informatique** (Dipartimento di Ingegneria Informatica), **Université de Technologie de Compiègne (UTC)** (Grande École d'Ingénieurs) - Sorbonne University Alliance, Compiègne, Francia.

## Istruzione

11/2006 - 01/2010

**Dottorato di Ricerca in Ricerca Operativa**, Sapienza Università di Roma (Roma, Italia), conseguito in data 18/01/2010; Tesi di Dottorato: "Pure 0-1 Programming approaches to Wireless Network Design", premiata con:

- l' **INFORMS Doctoral Dissertation Award for Operations Research in Telecommunications 2010**
- il **Premio Tesi di Dottorato Sapienza Università di Roma 2012**

02/2004 - 05/2006

**Laurea Specialistica in Ingegneria Gestionale**, Sapienza Università di Roma (Roma, Italia) (**110/110 e lode**), conseguita in data 30/05/2006.

Tesi di Laurea Specialistica: "Instradamento ottimo con vincoli di QoS in reti di telecomunicazioni"  
Premiata con il **Premio di Laura Accenture 2004/05 - Ingegneria Gestionale**

09/2000 - 02/2004

**Laurea Triennale in Ingegneria Gestionale**, Sapienza Università di Roma (Roma, Italia) (**110/110 e lode**), conseguita in data 24/02/2004.

Tesi di Laurea: "Assegnazione ottima di frequenze per tecniche di Frequency Hopping"

## Posizioni ricoperte presso Atenei e Centri di Ricerca in Italia e all'estero

<b>Dal 10/2016</b>	<p><b>"CHARGÉ DE RECHERCHE"</b> (posizione di ricercatore a <b>TEMPO INDETERMINATO</b> corrispondente ad una posizione di <b>Professore Associato</b> secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR)</p> <p><b>Centre National de la Recherche Scientifique (CNRS)</b>, Francia</p> <p>(assunto con il grado superiore di <i>"Première Classe (CR1)"</i> (Prima Classe) e convertito al grado di <i>"Classe Normale (CRCN)"</i> (Classe Normale) nel 10/2017, a seguito della riforma che ha fuso i gradi di <i>Prima Classe (CR1)</i> e <i>Seconda Classe (CR2)</i> nella <i>Classe Normale</i>).</p> <p>Afferente all'<b>Institute for Information Sciences and Technologies (INS2I)</b>, assegnato al <b>Laboratorio di Ricerca HEUDIASYC</b> ("HEUristique et DIAgnostic des SYstèmes Complexes" - UMR CNRS 7253) e <b>Docente</b> del <b>Département Génie Informatique</b> (Dipartimento di Ingegneria Informatica), <b>Université de Technologie de Compiègne (UTC)</b> (Grande École d'Ingénieurs) - <b>Sorbonne University Alliance</b>, Compiègne, Francia.</p> <p>Membro del Gruppo di Ricerca "SCOP - Safety, Communications, Optimization" del Laboratorio di Ricerca <b>HEUDIASYC</b>.</p>
<b>Dal 10/2015</b>	<p><b>Lecturer</b>, Master of Science Program in Global Production Engineering, Faculty V of Mechanical Engineering and Transport Systems, <b>Technische Universität Berlin</b>, Berlino, Germania</p>
<b>10/2015 - 09/2016</b>	<p><b>Head of Research Group</b>, Gruppo di Ricerca "Mathematics of Telecommunications", Department of Mathematical Optimization, <b>Zuse Institute Berlin (ZIB)</b>, Berlino, Germania</p>
<b>10/2015 - 09/2016</b>	<p><b>Lecturer</b>, Department of Mathematics and Computer Science, <b>Freie Universität Berlin</b>, Berlino, Germania</p>
<b>03/2014 - 09/2016</b>	<p><b>Research Fellow</b> (in qualità di <b>co-Principal Investigator</b> di progetto di ricerca finanziato da ECMath), <b>Einstein Center for Mathematics Berlin (EC Math)</b>, Berlino, Germania</p>
<b>06/2014 - 09/2016</b>	<p><b>"Wissenschaftlicher Mitarbeiter"</b> (ricercatore postdottorale, corrispondente ad una posizione di <b>Ricercatore RTD</b> secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR), Department of Mathematical Optimization, <b>Zuse Institute Berlin (ZIB)</b>, Berlino, Germania</p>
<b>06/2013 - 05/2014</b>	<p><b>"Wissenschaftlicher Mitarbeiter"</b> (ricercatore postdottorale, corrispondente ad una posizione di <b>Ricercatore RTD</b> secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR), DFG Research Center MATHEON, <b>Technische Universität Berlin</b>, Berlino, Germania</p>
<b>11/2010 - 05/2013</b>	<p><b>"Wissenschaftlicher Mitarbeiter"</b> (ricercatore postdottorale, corrispondente ad una posizione di <b>Ricercatore RTD</b> secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR), Department of Mathematical Optimization, <b>Zuse Institute Berlin (ZIB)</b>, Berlino, Germania</p>
<b>11/2009 - 10/2010</b>	<p>(Postdottorale da 01/2010) <b>Collaboratore di Ricerca</b>, Dipartimento di Informatica e Sistemistica, <b>Sapienza Università di Roma</b>, Roma, Italia</p>
<b>10/2008 - 08/2009</b>	<p><b>Research Scholar</b>, Department of Industrial Engineering and Operations Research, <b>Columbia University in the City of New York</b>, New York, USA</p>
<b>10/2007 - 12/2007</b>	<p><b>Collaboratore di Ricerca</b> con contratto di prestazione d'opera, <b>Centro di Eccellenza della Ricerca sulle Tecnologie del Software "RCOST"</b>, <b>Università degli Studi del Sannio</b> (Benevento)</p>
<b>11/2006 - 10/2009</b>	<p><b>Assistente di Ricerca e Studente di Dottorato</b>, Dipartimento di Informatica e Sistemistica, <b>Sapienza Università di Roma</b>, Roma, Italia</p>

---

## Abilitazioni

- 2020** **Abilitazione all'esercizio della Professione di Ingegnere** (Esame di Stato, Prima Sessione - Anno 2020, sezione A - settore Industriale)
- 2018** **Abilitazione Scientifica Nazionale, Professore di Seconda Fascia**, Settore Concorsuale 09/H1 – "SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI" (valida dal 26/07/2018 AL 26/07/2027)
- 2016** **Qualification** come "**Maître de Conférences**" (corrispondente ad una posizione di **Professore Associato** secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR) in **Francia** per le Sezioni:
- 27 - Informatique (Informatica)
  - 61 - Génie informatique, automatique et traitement du signal (Ingegneria Informatica, Automatica e Teoria dei Segnali)

---

## Premi

- 10/2019** **Honorable Mention - ISETT Best Paper Award 2019** per l'articolo "A Binary Linear Programming model for optimal parking slot management of urban carsharing services" (Proc. of the 2019 International Symposium on Emerging Trends in Transportation (ISETT), sponsored by the Transportation Research Board)
- 04/2018** **Vincitore dell' Evostar - EvoApplications Best Paper Award 2018** per l'articolo "A fast metaheuristic for the design of DVB-T2 Networks" (Proc. of EvoApplications 2018, Lecture Notes in Computer Science, Springer 2018)
- 02/2018** **Vincitore dell' ICIN Best Paper Award 2018** per l'articolo "Optimal Design of 5G Superfluid Networks: Problem Formulation and Solutions" (Proc. of the 21st Conference on Innovation in Clouds, Internet and Networks, IEEEExplore, 2018)
- 09/2017** **Vincitore dell' RNDM Best Paper Award 2017** per l'articolo "On survivable robust FSO network design" (Proc. of the 9th International Workshop on Resilient Networks Design and Modeling, IEEEExplore, 2017)
- 04/2016** **Candidato per il premio EvoStar - EvoApplications Best Paper Award 2016**  
(7 articoli candidati tra i 75 articoli pubblicati nei Proceedings LNCS Springer)  
per l'articolo "An (M)LP-based Primal Heuristic for 3-Architecture Connected Facility Location in Urban Access Network Design" (Springer Lecture Notes in Computer Science, 2016)
- 11/2014** **Vincitore dell' INFORMS Section on Telecommunications Best Paper Award 2014** per l'articolo "GUB Covers and Power Indexed formulations for Wireless Network Design " (pubblicato nella rivista *Management Science*, 2014, e sponsorizzato da INFORMS - Institute for Operations Research and the Management Sciences, USA)
- 04/2014** **Vincitore dell' Evostar - EvoComNet Best Paper Award 2014** per l'articolo "A hybrid primal heuristic for Robust Multiperiod Network Design" (Proc. of EvoApplications, Lecture Notes in Computer Science, Springer 2014)
- 07/2012** **Vincitore del Premio Tesi di Dottorato Sapienza Università di Roma 2012** per la migliore tesi della Macroarea Scientifica D discussa negli anni 2009 e 2010 (sponsorizzato da *Sapienza Università Editrice*)
- 03/2012** **Vincitore dell' ESF-JSPS Excellence Award 2012 "Mathematics for Innovation: Large and Complex Systems"** (Chairs: Prof. V. Mehrmann; Prof. Y. Maeda), sponsorizzato dalla *European Science Foundation (ESF)* e dalla *Japan Society for the Promotion of Science (JSPS)*

**05/2010** Vincitore dell' **INFORMS Doctoral Dissertation Award for Operations Research in Telecommunications 2010** per la mia Ph.D. Thesis "Pure 0-1 Programming approaches to Wireless Network Design" (sponsorizzato da INFORMS - Institute for Operations Research and the Management Sciences, USA)

**09/2006** Vincitore del Premio di Laurea Accenture 2004/05 per la migliore tesi in Ingegneria Gestionale, per la mia Tesi di Laurea Specialistica: "Instradamento ottimo con vincoli di QoS in reti di telecomunicazioni"

---

## Riconoscimenti

**07/2021** Vincitore della selezione pubblica per un posto di **RTDB** per il settore concorsuale 09/H1 – SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI, settore scientifico-disciplinare ING-INF/05 – SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI presso il **Dipartimento di Ingegneria e Architettura** dell' **Università degli Studi di Trieste** (Trieste, Italia)  
(Ho rinunciato alla posizione di vincitore, con l'effetto di far scorrere la graduatoria finale)

**07/2021** **Shortlisted** per la selezione pubblica per un posto di **Professore Associato** per il settore concorsuale 09/H1 – SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI, settore scientifico-disciplinare ING-INF/05 – SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI presso il **Dipartimento di Ingegneria e Architettura** dell' **Università degli Studi di Trieste** (Trieste, Italia)  
(La posizione mi è stata \*informalmente\* offerta al termine della procedura di selezione)

**08/2021** **Dichiarato idoneo** per un posto di **RTDB** nella selezione pubblica per il settore concorsuale 09/H1 – SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI, settore scientifico-disciplinare ING-INF/05 – SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI presso il **Dipartimento di Ingegneria e Scienza dell'Informazione** dell' **Università degli Studi di Trento** (Trento, Italia)  
(La posizione mi è stata \*informalmente\* offerta al termine della procedura di selezione)

**2016-2019** **Assegnatario di PEDR** ("Prime d'Encadrement Doctoral et de Recherche" – Premio di Supervisione di Dottorato e di Ricerca) assegnato dal **Centre National de la Recherche Scientifique (CNRS)** per meriti di ricerca, supervisione ed impegno scientifico (bonus salariale annuale di 3500 EUR)

**04/2016** **Offerta per una posizione a tempo indeterminato di "Maître Assistant" in Ingegneria Industriale** (corrispondente ad una posizione di "**Maître de Conférences**" francese, a sua volta corrispondente ad una posizione di **Professore Associato** secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR), a seguito della vittoria nel concorso internazionale di reclutamento.  
**École Nationale Supérieure des Mines de Nantes** (*Grande École d'Ingénieurs*), Nantes, Francia  
(OFFERTA NON ACCETTATA)

**2016** **Primo classificato** nella graduatoria finale "admissibilité" del concorso internazionale di reclutamento per una **posizione di "Chargé de Recherche de Première Classe (CR1)" a tempo** (corrispondente ad una posizione di **Professore Associato** secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR).  
**INRIA (National Institute for Research in Digital Science and Technology) Lille - Nord Europe**, Lille, Francia

**2016** **Inclusione nella shortlist per una posizione di Maître de Conférences** (corrispondente ad una posizione di **Professore Associato** secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR) in **Computer Science** nei concorsi internazionali presso le università:

- **École Polytechnique**, Palaiseau-Parigi, Francia
- **Université Paris Dauphine**, Parigi, Francia

- 04/2015** **Invited Seminar** come Ricercatore Post-doc rappresentante dell'Area B "Networks" durante l'**International Scientific Board Evaluation Meeting** del **DFG Research Center MATHEON** (Berlino, Germania)
- 10/2014** **Inclusione nella shortlist** per una **Tenure Track Assistant Professorship** in Operations/Industrial Engineering nel Department of Operations della **University of Groningen** (Paesi Bassi)
- 11/2013** **Secondo Classificato nella graduatoria finale** per il reclutamento di un **Head of Research Group** (corrispondente ad una posizione di Assistant Professor) per la creazione del Gruppo di Ricerca "Optimization under Uncertainty" a **Technische Universität Berlin** (Berlino, Germania), finanziato dall'Einstein Center for Mathematics Berlin (Selection Committee: Prof. G. Kutyniok, Prof. R. Möhring, Prof. M. Skutella)
- 10/2006** **Borsa di Dottorato Triennale** erogata del **Ministero dell'Istruzione, dell'Università e della Ricerca (Italia)**, vinta tramite concorso per accesso al Dottorato di Ricerca in Ricerca Operativa, Sapienza Università di Roma (Roma, Italia)

## Esperienza professionale

- 04/2013 - 03/2014** **Consulente,**  
**Quantek s.r.l.,** Roma, Italia.  
Sviluppo di modelli e algoritmi di ottimizzazione matematica per decisioni in condizioni di *data uncertainty* per il design e management di *energy e power systems* per la multinazionale **Enel S.p.A.**
- 09/2009 - 10/2009** **Consulente,**  
**TeS Teleinformatica e Sistemi s.r.l.,** Roma, Italia.  
Sviluppo di modelli e algoritmi di ottimizzazione matematica per il design di reti televisive basate sullo standard **Digital Video Broadcasting – Terrestrial (DVB-T)**
- 05/2007 - 06/2007** **Consulente,**  
**British Telecom Italia (BT Italia S.p.A.),**  
**Technical Strategy & Innovation Unit,** Roma, Italia.  
Sviluppo di un software basato su C++ per il processamento di *Digital Terrain Maps* per l'elaborazione di dati relativi al design e management di reti cellulari wireless di 4a generazione.
- 03/2007 - 10/2009** **Consulente,**  
**Space Engineering S.p.A., - TeS Teleinformatica e Sistemi s.r.l.,** Roma, Italia.  
Sviluppo di modelli e algoritmi di ottimizzazione matematica per il design di reti wireless (Progetto di Ricerca APICE – Algorithms for Integrated Planning and Control of Heterogeneous Wireless Networks).
- 09/2008 - 10/2008** **Consulente,**  
**Elsag Datamat S.p.A. (A Finmeccanica Company),**  
**Computer Science Division,** Roma, Italia.  
Consulenza per lo sviluppo di un software per la pianificazione e ottimizzazione di reti wireless.
- 10/2006 - 04/2007** **Consulente Junior**  
Information & Communications Technology  
**Accenture S.p.A.,** Roma, Italy.
- 01/2006 - 05/2009** **Socio Fondatore e Segretario**  
**Associazione Ingegneria Gestionale Roma Sapienza (AIGERS),** Roma, Italia.  
Amministrazione dell'associazione, fund raising, gestione delle relazioni con università, aziende e studenti.

## Attività didattica presso Atenei in Italia e all'estero

10/2021

Offerta (accettata) per creare ed insegnare in qualità di Lecturer un nuovo corso semestrale di circa 60 ore nel Master of Science Program in Global Production Engineering - DIGITAL (nuovo programma di Master of Science internazionale con corsi interamente online che inizierà a settembre 2022).

**Titolo provvisorio del corso: "Introduction to Machine Learning and Optimization"** (sto attualmente preparando il materiale didattico e negoziando le caratteristiche del corso).

Faculty of Mechanical Engineering and Transport Systems, **Technische Universität Berlin, Berlino, Germania**

Anno Accademico  
2021-2022

**Lecturer** dei seguenti corsi:

1. "Mathematical Methods for Engineering and Management",  
Master of Science Program in Global Production Engineering,  
Faculty of Mechanical Engineering and Transport Systems, **Technische Universität Berlin, Berlino, Germania**  
(corso parzialmente online - responsabile del corso e unico lecturer delle **64 ore di didattica**)
2. "Introduction to Optimization under Data Uncertainty",  
Master of Science in Engineering of Complex Systems,  
Faculty of Computer Sciences and Engineering, **Université de Technologie de Compiègne (UTC), Compiègne, France**  
(responsabile e lecturer del corso di **32 ore**)

Anno Accademico  
2020-2021

**Lecturer** dei seguenti corsi:

1. "Mathematical Methods for Engineering and Management",  
Master of Science Program in Global Production Engineering,  
Faculty of Mechanical Engineering and Transport Systems, **Technische Universität Berlin, Berlino, Germania**  
(corso totalmente online a causa dell'emergenza Covid - responsabile del corso e unico lecturer delle **64 ore di didattica**)
2. "Introduction to Optimization under Data Uncertainty",  
Master of Science in Engineering of Complex Systems,  
Faculty of Computer Sciences and Engineering, **Université de Technologie de Compiègne (UTC), Compiègne, Francia**  
(responsabile e lecturer del corso di **32 ore**)

Anno Accademico  
2019-2020

**Lecturer** dei seguenti corsi:

1. "Mathematical Methods for Engineering and Management",  
Master of Science Program in Global Production Engineering,  
Faculty of Mechanical Engineering and Transport Systems, **Technische Universität Berlin, Berlino, Germania**  
(corso parzialmente online - responsabile del corso e unico lecturer delle **64 ore di didattica**)

2. "Mathematical Methods for Engineering and Management",  
Master of Science Program in Global Production Engineering  
Faculty of Mechanical Engineering and Transport Systems, **Technische Universität Berlin, Berlino, Germania**  
(corso parzialmente online - responsabile del corso e unico lecturer delle **64 ore di didattica**)
3. "Introduction to Optimization under Data Uncertainty",  
Master of Science in Engineering of Complex Systems,  
Faculty of Computer Sciences and Engineering, **Université de Technologie de Compiègne (UTC), Compiègne, France**  
(responsabile e lecturer del corso di **32 ore**)

**Anno Accademico  
2017-2018**

**Lecturer** dei seguenti corsi:

1. "Mathematical Methods for Engineering and Management",  
Master of Science Program in Global Production Engineering,  
Faculty of Mechanical Engineering and Transport Systems, **Technische Universität Berlin, Berlino, Germania**  
(corso parzialmente online - responsabile del corso e unico lecturer delle **64 ore di didattica**)
2. "Mathematical Optimization for Civil Engineering",  
**Short Course per il Dottorato di Ricerca in Ingegneria Civile,**  
Dipartimento di Ingegneria, **Università Roma Tre, Roma, Italia**  
(**7 ore di didattica**)

**Anno Accademico  
2016-2017**

**Lecturer** dei seguenti corsi:

1. "Operations Research 3",  
Faculty of Computer Sciences and Engineering, **Université de Technologie de Compiègne (UTC) Compiègne, Francia**  
(lecturer per **20 ore di didattica** ("Travaux dirigés"))
2. "Mathematical Methods for Engineering and Management",  
Master of Science Program in Global Production Engineering  
Faculty of Mechanical Engineering and Transport Systems, **Technische Universität Berlin, Berlino, Germania**  
(corso parzialmente online - responsabile del corso e unico lecturer delle **64 ore di didattica**)
3. "Robust Network Optimization"  
**Summer School on Network Performance Evaluation and Optimization,**  
**Technische Universität Chemnitz, Chemnitz, Germania (3,5 ore)**

**Anno Accademico**  
**2015-2016**

**Lecturer** dei seguenti corsi:

1. "Mathematical Methods for Engineering and Management",  
Master of Science Program in Global Production Engineering  
Faculty of Mechanical Engineering and Transport Systems, **Technische Universität Berlin**  
(responsabile del corso e unico lecturer delle **64 ore di didattica**)
2. "Design and Operation of Traffic and Telecommunication Networks" , Department of  
Mathematics and Computer Science, **Freie Universität Berlin, Berlino, Germania**  
(co-responsabile con il Prof. R. Borndörfer delle **64 ore di didattica e di 32 ore di sessioni di esercizi**, lecturer di **32 delle 64 ore di didattica**)
3. "Linear Optimization",  
Department of Mathematics and Computer Science, **Freie Universität Berlin**  
(responsabile del corso e lecturer delle **56 ore di didattica e delle 28 ore di sessioni di esercizi**)

**Anno Accademico**  
**2009 - 2010**

**Facoltà di Ingegneria, Sapienza Università di Roma (Roma, Italy),**

1. **Tutor** del Corso "Laboratorio di Ottimizzazione Combinatoria" (Prof. C. Mannino e Prof. A. Sassano);
2. **Facoltà di Ingegneria, Sapienza Università di Roma, Roma, Italia.**  
**Tutor** per i seguenti corsi delle Lauree Triennali e Specialistiche in Ingegneria:
  1. Gestione Aziendale (Prof. C. Leporelli);
  2. Ottimizzazione nella Gestione dei Progetti (Prof. C. Mannino);
  3. Sistemi di Servizio e Simulazione (Prof. M. Roma);
  4. Fondamenti di Automatica (Prof. L. Benvenuti);
  5. Fondamenti di Automatica (Prof. L. Farina).

**Spring Semester**  
**2009**

**Master of Science in Financial Engineering, Columbia University in the City of New York (New York, USA),**  
**Teaching Assistant** del corso "Applications Programming for Financial Engineers" (Prof. D. Bienstock).

**Anno Accademico**  
**2007-2008**

**Facoltà di Ingegneria, Sapienza Università di Roma, Roma, Italia.**

**Tutor** per i seguenti corsi delle Lauree Triennali e Specialistiche in Ingegneria:

1. Laboratorio di Ottimizzazione Combinatoria (Prof. C. Mannino);
2. Ottimizzazione nella Gestione dei Progetti (Prof. C. Mannino);
3. Modelli e Algoritmi della Logistica (Prof. C. Mannino);
4. Modelli e Algoritmi della Logistica (Prof. A. Sassano);
5. Progetto e Ottimizzazione di Reti (Prof. P. Nobili);
6. Progetto e Ottimizzazione di Reti (Prof. A. Sassano).

**Anno Accademico**  
**2006-2007**

**Facoltà di Ingegneria, Sapienza Università di Roma, Roma, Italia.**

**Tutor** per il seguente corso delle Lauree Triennali e Specialistiche in Ingegneria:

1. Ottimizzazione nella Gestione dei Progetti (Prof. C. Mannino);

## Supervisione di attività di ricerca e di studenti

2017-2021	<b>Co-Supervisor del Ph.D. Student</b> Leonardo Zamberlan, <b>Dottorato di Ricerca in Ingegneria Civile, Università Roma Tre, Roma</b> , Italia (co-supervisionato con S. Carrese e E. Cipriani, Titolo della Tesi: "Simulation and Optimization of Sharing Mobility Services") Data dell'esame finale: 27/04/2021 (superato)
2017-in corso	<b>Co-Supervisor del Ph.D. Student</b> Chenghao Wang, <b>Ph.D. Program dell'École doctorale n° 71 "Sciences pour l'Ingénieur", Université de Technologie de Compiègne</b> , Francia (co-supervisionato con D. Nace, Titolo finale della Tesi: "Contribution to Robust Network Optimization") Data dell'esame finale: 30/09/2021 (superato)
2018-2021	<b>Advisor dell'Assegnista di Ricerca</b> Tommaso Giacchetti, titolare di assegno di ricerca triennale riguardante lo sviluppo di modelli e algoritmi di simulazione e ottimizzazione per problemi di smart e shared mobility (Responsabile scientifico: Prof. Stefano Carrese, <b>Dipartimento di Ingegneria, Università Roma Tre, Roma</b> , Italia)
2018-in corso	<b>Advisor della Ph.D. Student</b> Antonella Nardin, <b>Dottorato di Ricerca in Ingegneria Civile</b> (Titolo della Tesi: "New regulatory and optimization approaches to smart vehicle sharing services") <b>Università Roma Tre, Roma</b> , Italia (Ph.D. Supervisor: Prof. Stefano Carrese, <b>Dipartimento di Ingegneria, Università Roma Tre, Roma</b> , Italia)
2020-2021	<b>Supervisor di 5 M.Sc. Theses</b> in Production Engineering a <b>Technische Universität Berlin</b> , Berlino, Germany
2015-2016	<b>Supervisor del Post-doc</b> Frank Pfeuffer, a <b>Zuse Institute Berlin (ZIB)</b> (Berlino, Germania), in qualità di Head of Research Group del gruppo di ricerca "Mathematics of Telecommunications", di cui Pfeuffer era membro
2014-2016	<b>Supervisor del Ph.D. Student</b> Jonad Pulaj (Technische Universität Berlin, Berlino Germania) da me assunto come <b>Research Fellow</b> per il progetto di ricerca triennale "ROUAN - Robust Optimization of Urban Access Network", finanziato dall'Einstein Center for Mathematics Berlin (ECMath), Germania, di cui ero Principal Investigator
02/2015-07/2015	<b>Supervisor della Ph.D. Student</b> Michela Di Lullo (Ph.D. Program in Operations Research, Sapienza Università di Roma, Roma, Italia) <b>durante il suo research visit a Zuse Institute Berlin</b> (Berlino, Germania).
2014-2015	<b>Co-Supervisor di B.Sc. e M.Sc. Theses</b> in Mathematics and Computer Science at <b>Freie Universität Berlin</b> and <b>Technische Universität Berlin</b> , Berlino, Germania.
2012-2014	<b>Co-Supervisor</b> dei seguenti <b>Research Assistant a Zuse Institute Berlin (ZIB)</b> , Berlino, Germania: <ul style="list-style-type: none"><li>• Jonatan Krolikowski (DFG Research Project "Multiperiod Network Design", Technical University Berlin, Berlino, Germania)</li><li>• Fabian Mett (BMBF Research Project "Virtual Network Optimization", Freie University Berlin, Berlino, Germania)</li></ul>
2007-2009	<b>Co-Relatore</b> di numerose Tesi di Laurea Triennale e Specialistica in <b>Ingegneria Gestionale</b> presso Sapienza Università di Roma (Roma, Italia)

## Progetti di ricerca (acquisizione e partecipazione)

- In qualità di Principal Investigator (PI):

**2020:**

**1-year Research Project** "ROSE - Research on Open SRv6 Ecosystem" (co-PI con Prof. L. Chiaraviglio e Prof. S. Salsano, CNIT (Consorzio nazionale interuniversitario per le telecomunicazioni) e Università di Roma Tor Vergata (Roma, Italia), finanziato dal **Cisco University Research Program Fund (USA)**  
(finanziamento: ca. 125.000 USD, durata: 1 anno)

**2018:**

**1-year Research Project** "Exploiting synergies of UAV networks and 5G" (co-PI con Prof. Enrico Natalizio, University of Technology of Compiègne, Compiègne, Francia), finanziato dal **Laboratory of Excellence LABEX MS2T "Control of Technological Systems-of-Systems", Université de Technologie de Compiègne, Francia**  
(finanziamento: ca. 35.000 EUR per coprire i costi di una posizione Post-doc per 1 anno)

**2017:**

**3-year Research Project** "New optimization approaches for the design of 5G Superfluid Networks" (co-PI with D. Nace, University of Technology of Compiègne, Compiègne, Francia), finanziato dal **Ministère de l'Enseignement Supérieur et de la Recherche** (MESR – Ministero Francese dell'Istruzione Superiore e della Ricerca), **Francia**  
(finanziamento: ca. 60.000 EUR per coprire i costi di una posizione di Ph.D. Student per 3 anni)

**2014:**

**3-year Research Project** "ROUAN - Robust Optimization of Urban Access Network" (co-PI with A. Werner, Zuse Institute Berlin, Berlino, Germania), finanziato dall'**Einstein Center for Mathematics Berlin (ECMath), Germania**  
(finanziamento: ca. 150.000 EUR per coprire i costi di una posizione di Research Fellow per 3 anni con inquadramento salariale tedesco di livello TV-L 13)

- In qualità di co-autore di proposte di progetto:

1. **3-year Research Project** "Virtual Network Optimization", finanziato dal **Bundesministerium für Bildung and Forschung** (BMBF - Ministero Federale Tedesco per l'Istruzione e la Ricerca) call for project (Fall 2012), presentato da A. Werner (Zuse Institute Berlin (ZIB), Berlino, Germania)

(Finanziamento: totale ca. 800.000 EUR, ca. 200.000 EUR per Zuse Institute Berlin)

NOTA: siccome il finanziamento del progetto avrebbe dovuto finanziare la mia posizione di Wissenschaftlicher Mitarbeiter presso lo Zuse Institute Berlin, non potevo figurare come co-Principal Investigator nella proposta

2. **1-year Research Project** "Robust Energy Offering under Market Equilibrium Constraints" finanziato da **"Gaspard Monge Program for Optimization, operations research and their interactions with Data Science (PGMO)",** (Call for Projects 2017), presentato da Prof. B. Fortz (Univ. Libre de Bruxelles, Belgio) (Finanziamento: ca. 10.000 EUR)
3. **1-year Research Project** "Robust Optimization for Data Mining Problems" finanziato da **Sapienza Università di Roma** (Call for Projects Spring 2013), presentato da Prof. R. Bruni (Finanziamento: ca. 2.500 EUR)
4. **2-year Cooperation Project** "Optimizing Railway Operations" con SINTEF Oslo, finanziato da **German Academic Exchange Service (DAAD)** call for project (Summer 2013), presentato da Prof. Dr. R. Borndörfer, Zuse Institute Berlin (ZIB) (Finanziamento: ca. 10.000 EUR)
5. **Progetto di Ricerca Europeo Triennale** "MOBINCITY - Smart Mobility In Smart City" (2012-2015, European Unions's 7th Framework Program), co-autore con il Prof. C. Mannino della parte di proposta riguardante approcci di network design e optimization da integrare nella parte di proposta di progetto del partecipante CRAT (Consorzio per la Ricerca nell'Automatica e nelle Telecomunicazioni, Roma) (Contributo UE: ca. 2.900.000 EUR, di cui ca. 265.000 EUR per il CRAT), 2010

- **Co-autore di proposte di progetto per bandi pubblici di gare di appalto (NOTA: le seguenti proposte non sono risultate vincitrici delle relative gare):**

1. Gara d'appalto pubblico per lo sviluppo di software per il progetto e la gestione di reti di distribuzione di energia elettrica (proposta presentata in collaborazione con l'azienda **QuanTek s.r.l.**, bando di gara di **Terna S.p.A.**), 2013;
2. Gara d'appalto pubblico per lo sviluppo di software di simulazione e ottimizzazione per il design e la gestione di reti televisive basate sullo standard Digital Video Broadcasting – Terrestrial (DVB-T) (proposta presentata in collaborazione con l'azienda **Space Engineering S.p.A.**, bando di gara AGCOM - **Autorità per le Garanzie nelle Comunicazioni**, 2010.

**Oltre a partecipare alle attività di ricerca dei progetti elencati nella precedente sezione (escluso il Progetto di Ricerca Europeo MOBINCITY), ho partecipato ai seguenti progetti di ricerca:**

- 2013-2014** "Wissenschaftlicher Mitarbeiter" (ricercatore postdottorale, corrispondente ad una posizione di Ricercatore RTD secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR) responsabile delle attività di ricerca svolte per il Progetto di Ricerca pluriennale "MATHEON B3 - Integrated Planning of Multi-layer Telecommunication Networks" (finanziato dal **DFG Research Center MATHEON**), **DFG Research Center MATHEON, Technische Universität Berlin** (Berlino, Germania)
- 2010-2013** "Wissenschaftlicher Mitarbeiter" (ricercatore postdottorale, corrispondente ad una posizione di Ricercatore RTD secondo la tabella allegata al D.M. 662 del 1 settembre 2016 del MIUR) responsabile delle attività di ricerca svolte per il Progetto di Ricerca triennale "ROBUKOM: Robust Communication Networks" (finanziato dal "German Federal Ministry for Education and Research (BMBF)", **Department of Mathematical Optimization, Zuse Institute Berlin (ZIB)** (Berlino, Germania)
- 2008-2009** Collaboratore alla Ricerca (con Contratto Co.Co.Co) per il Progetto di Ricerca APICE ("Algoritmi per la Pianificazione Integrata e Controllo di reti wireless Eterogenee", progetto MIUR n. 2878) presso il **Dipartimento di Informatica e Sistemistica "A. Ruberti", Università degli Studi di Roma "La Sapienza"** (Roma, Italia)
- 2009** Collaboratore alla Ricerca (con contratto di collaborazione occasionale) del **Dipartimento di Ingegneria, Università del Sannio** (Benevento, Italia) per attività di implementazione e sperimentazione di algoritmi di routing su reti MPLS nell'ambito della convezione "ITALTEL Progetto NAIN";
- 2007** Collaboratore alla Ricerca (con Contratto di Prestazione d'Opera) del **Centro di Eccellenza della Ricerca sulle Tecnologie del Software (RCOST)** (Benevento, Italia) per svolgere attività progettuali di studio e analisi di modelli e algoritmi di ottimizzazione per il routing nelle reti di telecomunicazione;

## Research Grant personali

04/2020	<b>UTC Mobility Grant</b> Erogato da <b>Université de Technologie de Compiègne</b> (Compiègne, Francia) per la mia proposta di progetto finalizzata a stabilire nuove collaborazioni di ricerca sui temi delle reti 5G e del <i>Segment Routing</i> con l'Università di Roma Tor Vergata ( <b>Finanziamento: 5.000 EUR</b> )
07/2019	<b>Technical University Chemnitz Visiting Grant</b> Erogato da <b>Technische Universität Chemnitz</b> (Chemnitz, Germania) per un research visit di 2 settimane presso la Chair of Communications Networks (Prof. T. Bauschert) ( <b>Finanziamento: ca. 1.500 EUR</b> )
03/2015	<b>COST Action TD 1207 Short Term Scientific Mission Grant</b> Erogato da <b>COST</b> per un visiting presso Dr. C. D'Ambrosio (École Polytechnique, Palaiseau, France) Tema: "Robust Optimization for Uncertain Unit Commitment Problems with Quadratic Cost Function" ( <b>Finanziamento: ca. 1.000 EUR</b> )
03/2014	<b>EvoStar 2014 Grant (Granada, Spagna)</b> Erogato per incentivare la partecipazione di giovani ricercatori alla conferenza (Granada, Spagna)
03/2014	<b>Institute of Statistical Mathematics Grant</b> Erogato per un research visit di 1 settimana presso l'Istituto (Tachikawa-Tokyo, Giappone) ( <b>Finanziamento: ca. 2.500 EUR</b> )
07/2013	<b>Mixed Integer Programming Workshop 2013 - Young Scholar Grant (Madison, USA)</b> Erogato per incentivare la partecipazione di giovani ricercatori al Workshop
04/2013	<b>FORMATH 2013 Grant,</b> Erogato per un partecipare come invited speaker al Symposium FORMATH 2013 (Fukushima, Japan) ed effettuare un research visit presso il Japanese Institute of Statistical Mathematics, Tokyo, Japan ( <b>Finanziamento: ca. 2.500 EUR</b> )
02/2012	<b>European Science Foundation - Japan Society for the Promotion of Science Grant,</b> Erogato per presentare il mio lavoro alla conferenza "Mathematics for Innovation" (Tokyo, Japan)
05/2011	<b>EvoStar 2011 Grant</b> Erogato per incentivare la partecipazione di giovani ricercatori alla conferenza (Torino, Italia)
05/2008	<b>IPCO Summer School Ph.D. Student Grant,</b> Erogato per incentivare la partecipazione di Ph.D. Students alla conferenza (Bertinoro, Italia)
10/2006	<b>Borsa di Dottorato Triennale</b> erogata del <b>Ministero dell'Istruzione, dell'Università e della Ricerca (Italia)</b> , vinta tramite concorso per accesso al Dottorato di Ricerca in Ricerca Operativa, Sapienza Università di Roma (Roma, Italia)

## Pubblicazioni

Alla data 08/12/2021, risulterebbe essere in possesso dei seguenti indicatori relativi alla mia produzione scientifica complessiva (dati recuperati dalla banca dati Scopus, **Scopus Author Identifier: 37123843000**):

- a) numero totale di lavori: **48**
- b) indice di Hirsch: **14**
- c) numero totale delle citazioni: **590**
- d) numero medio di citazioni per pubblicazione **12.29** (calcolato dividendo il numero totale delle citazioni per il numero totale di lavori registrati su Scopus);
- e) impact factor totale: **77.685**

**NOTE:**

- questo valore si riferisce ai 26 articoli inclusi nella lista "Articoli in rivista" fornita di seguito;
- il valore di impact factor è quello recuperato dal sito ufficiale di ogni rivista alla data 08/12/2021;

- f) impact factor medio per pubblicazione: **2.987**

**NOTE:**

- questo valore si riferisce ai 26 articoli inclusi nella lista "Articoli in rivista" fornita di seguito ed è stato calcolato dividendo l'impact factor totale sopra riportato per 26),
- il valore di impact factor è quello recuperato dal sito ufficiale di ogni rivista alla data 08/12/2021).

**NOTA IMPORTANTE:** A riguardo degli indicatori sopra riportati, evidenzio che, alla data 08/12/2021, il mio profilo Scopus con numero Scopus Author Identifier 37123843000 **NON INCLUDE** tutti i miei lavori indicizzati Scopus.

A causa di refusi nel mio cognome, non sono infatti correttamente inclusi i miei lavori presenti nel profilo:

**D'Andreagiovanni, Fabio (Scopus Author Identifier 57201387622)** includente 7 lavori con 50 citazioni totali, tra cui il contributo in atti di convegno dal titolo "When UAVs Ride a Bus: Towards Energy-efficient City-scale Video Surveillance", pubblicato nei Proceedings di IEEE INFOCOM 2018 (IEEE International Conference on Computer Communications), 2018, DOI: 10.1109/INFOCOM.2018.8485863, con 45 citazioni totali;

**I miei indicatori Scopus corretti sarebbero quindi:**

- numero totale di lavori registrati in Scopus: **55**
- indice di Hirsch: **15**
- numero totale di citazioni: **640**

In data 23/03/2021, ho presentato richiesta di fusione dei profili nel mio profilo Scopus con Identifier: **37123843000**

### Articoli in rivista

1. L. Chiaraviglio, **F.D'Andreagiovanni**, W. Liu, J. A. Gutierrez, N. Blefari-Melazzi, K.R. Choo, M. Alouini, "Multi-Area Throughput and Energy Optimization of UAV-aided Cellular Networks Powered by Solar Panels and Grid", **IEEE Transactions on Mobile Computing** (IEEE), vol. 20, pp. 2427-2444, 2021, DOI: 10.1109/TMC.2020.2980834
2. M. Vidan, **F. D'Andreagiovanni**, H. Pandzic, "Individual Thermal Generator and Battery Storage Bidding Strategies Based on Robust Optimization", **IEEE Access** (IEEE), vol. 9, pp. 66829-66838, 2021, DOI: 10.1109/ACCESS.2021.3076872
3. S. Carrese, **F. D'Andreagiovanni**, T. Giacchetti, A. Nardin, L. Zamberlan, "A Beautiful Fleet: Optimal Repositioning in E-scooter Sharing Systems for Urban Decorum", **Transportation Research Procedia** (Elsevier), vol. 52, pp. 581-588, 2021, DOI: 10.1016/j.trpro.2021.01.069

4. **F. D'Andreagiovanni**, A. Nardin, S. Carrese,  
"An Analysis of the Service Coverage and Regulation of E-Scooter Sharing in Rome (Italy)",  
Accepted for publication in **Transportation Research Procedia** (Elsevier), 2021
5. S. Carrese, **F. D'Andreagiovanni**, T. Giacchetti, A. Nardin, L. Zamberlan,  
"An optimization model and genetic-based matheuristic for parking slot rent optimization to carsharing",  
**Research in Transportation Economics** (Elsevier) vol. 85, 100962, 2020, DOI: 10.1016/j.retrec.2020.100962
6. R. Garroppo, M.G. Scutellà, **F. D'Andreagiovanni**,  
"Robust green Wireless Local Area Networks: A matheuristic approach",  
**Journal of Network and Computer Applications**, vol. 163, 102657, 2020, DOI: 10.1016/j.jnca.2020.102657
7. S. Carrese, **F. D'Andreagiovanni**, T. Giacchetti, A. Nardin, L. Zamberlan,  
"An optimization model for renting public parking slots to carsharing services",  
**Transportation Research Procedia** (Elsevier), vol. 45, pp. 499-506, 2020, DOI: 10.1016/j.trpro.2020.03.064
8. S. Carrese, **F. D'Andreagiovanni**, T. Giacchetti, A. Nardin, L. Zamberlan,  
"Optimal rental and configuration of reserved parking for carsharing by Integer Linear Programming and Ant Colony Optimization",  
**Advances in Transportation Studies**, vol. 3, pp. 63-76, 2019, DOI: 10.4399/97888255317946
9. L. Chiaraviglio, **F. D'Andreagiovanni**, K.R. Choo, F. Cuomo, S. Colonnese,  
"Joint Optimization of Area Throughput and Grid-Connected Microgeneration in UAV-Based Mobile Networks",  
**IEEE Access** 7, 69545-69558, 2019, DOI: 10.1109/ACCESS.2019.2920065
10. L. Chiaraviglio, **F. D'Andreagiovanni**, S. Rossetti, G. Sidoretti, N. Blefari-Melazzi, S. Salsano, C. Chiasserini, F. Malandrino,  
"Algorithms for the design of 5G networks with VNF-based Reusable Functional Blocks",  
**Annals of Telecommunications** 74 (9-10), 559-574, 2019, DOI: 10.1007/s12243-019-00722-w
11. S. Coniglio, **F. D'Andreagiovanni**, F. Furini,  
"A lexicographic pricer for the fractional bin packing problem",  
**Operations Research Letters** 47 (6), 622-628, 2019, DOI: 10.1016/j.orl.2019.10.011
12. **F. D'Andreagiovanni**, H. Lakhlef, A. Nardin,  
"A matheuristic for joint optimal power and scheduling assignment in DVB-T2 networks",  
**Algorithms**, MDPI, 13(1), 27, 2020, DOI: 10.3390/a13010027
13. D. Nace, M. Pioro, M. Poss, **F. D'Andreagiovanni**, I. Kalesnikau, M. Shehaj, A. Tomaszewski,  
"An optimization model for robust FSO network dimensioning",  
**Optical Switching and Networking** (Elsevier), vol. 32, pp. 25-40, 2019, DOI:10.1016/j.osn.2018.11.004
14. L. Chiaraviglio, **F. D'Andreagiovanni**, C. Canali, R. Lancellotti, M. Shojafar, N. Blefari Melazzi,  
"An Approach to Balance Maintenance Cost and Electricity Consumption in Cloud Data Centers",  
**IEEE Transactions on Sustainable Computing** 2(3), 274 - 288, 2018, DOI: 10.1109/TSUSC.2018.2838338
15. **F. D'Andreagiovanni**, R. Garroppo, M.G. Scutellà,  
"Green Design of Wireless Local Area Networks by Multiband Robust Optimization",  
**Electronic Notes in Discrete Mathematics** (Elsevier), 64, 225-234, 2018, DOI: 10.1016/j.endm.2018.01.024
16. **F. D'Andreagiovanni**, F. Mett, A. Nardin, J. Pulaj  
"Integrating LP-guided variable fixing with MIP heuristics in the robust design of hybrid wired-wireless FTTx access networks",  
**Applied Soft Computing** (Elsevier), vol. 61, pp. 1074-1087, 2017, DOI:10.1016/j.asoc.2017.07.018
17. A. Marotta, **F. D'Andreagiovanni**, A. Kassler, E. Zola,  
"On the Energy Cost of Robustness for Green Virtual Network Function Placement in 5G Virtualized Infrastructures",  
**Computer Networks** (Elsevier), vol. 125, pp. 64-75, 2017, DOI: 10.1016/j.comnet.2017.04.045

18. A. Marotta, E. Zola, **F. D'Andreagiovanni**, A. Kassler,  
 "A fast robust optimization-based heuristic for the deployment of green virtual network functions",  
**Journal of Network and Computer Applications** (Elsevier), vol. 95, pp. 42-53, 2017,  
 DOI:10.1016/j.jnca.2017.07.014
19. **F. D'Andreagiovanni**, A. Nardin,  
 "Towards the fast and robust optimal design of Wireless Body Area Networks",  
**Applied Soft Computing** (Elsevier), vol. 37, pp. 971-982, 2015, DOI:10.1016/j.asoc.2015.04.037
20. T. Bauschert, C. Büsing, **F. D'Andreagiovanni**, A. Koster, M. Kutschka, U. Steglich,  
 "Network Planning under Demand Uncertainty with Robust Optimization",  
**IEEE Communications Magazine**, 52 (2) 178-185, 2014, DOI: 10.1109/MCOM.2014.6736760
21. **F. D'Andreagiovanni**  
 Revisiting Wireless Network Jamming by SIR-based considerations and Multiband Robust Optimization  
**Optimization Letters** (Springer), 9 (8), 1495–1510, 2015, DOI: 10.1007/s11590-014-0839-2
22. P. Dely, **F. D'Andreagiovanni**, A. Kassler  
 Fair Optimization of Mesh-Connected WLAN Hotspots  
**Wireless Communications and Mobile Computing** (Wiley), 15(5), 924–946, 2015, DOI: 10.1002/wcm.2393
23. **F. D'Andreagiovanni**, J. Krolikowski, J. Pulaj,  
 "A fast hybrid primal heuristic for Multiband Robust Capacitated Network Design with Multiple Time Periods",  
**Applied Soft Computing** (Elsevier) 26, 497-507, 2015, DOI: 10.1016/j.asoc.2014.10.016
24. **F. D'Andreagiovanni**, C. Mannino, A. Sassano  
 GUB Covers and Power-Indexed Formulations for Wireless Network Design  
**Management Science** 59 (1), 142-156, 2013, DOI: 10.1287/mnsc.1120.1571  
 Vincitore dell'INFORMS Section on Telecommunications Best Paper Award 2014
25. A. Bley, D. Karch, **F. D'Andreagiovanni**  
 WDM Fiber Replacement Scheduling  
**Electronic Notes in Discrete Mathematics** 41, 7276, 189-196, 2013, DOI: 10.1016/j.endm.2013.05.092
26. **F. D'Andreagiovanni**  
 Pure 0-1 Programming approaches to Wireless Network Design  
 4OR: A Quarterly Journal of Operations Research, 2012 , DOI: 10.1007/s10288-011-0162-z  
 Ph.D. Thesis vincitrice dei premi:  
 - INFORMS Section on Telecommunications Doctoral Dissertation Award 2010  
 - Premio Tesi di Dottorato Sapienza Università 2012

### **Contributi in atti di convegno (refereed conference proceedings)**

1. S. Carrese, **F. D'Andreagiovanni**, A. Nardin, T. Giachetti, L. Zamberlan,  
 "Seek & Beautify: integrating UAVs in the optimal beautification of e-scooter sharing fleets",  
**Accettato per la pubblicazione nei Proceedings of IEEE MT-ITS 2021 - 7th International IEEE Conference on Models and Technologies for Intelligent Transportation Systems** (IEEE Xplore), 2021
2. **F. D'Andreagiovanni**, H. Lakhlef, A. Nardin,  
 "A Robust Optimization Approach for Designing FTTx Networks Integrating Free Space Optics under Weather Uncertainty",  
**ACM Q2SWinet 2020 - Proceedings of the 16th ACM Symposium on QoS and Security for Wireless and Mobile Networks**, pp. 7–13, 2020, DOI: 10.1145/3416013.3426448
3. H. Lakhlef, A. Bouabdallah, **F. D'Andreagiovanni**,  
 "A Memory-efficient Group Key Management for Communicating Things",  
**ACM Q2SWinet 2020 - Proceedings of the 16th ACM Symposium on QoS and Security for Wireless and Mobile Networks**, pp. 29–35, 2020, DOI: 10.1145/3416013.3426447

4. S. Ismail, **F. D'Andreagiovanni**, H. Lakhlef, Y. Imine,  
 "Recent Advances on 5G Resource Allocation Problem using PD-NOMA",  
**Proceedings of the 2020 International Symposium on Networks, Computers and Communications (ISNCC)**,  
 IEEE Xplore, 2020, DOI: 10.1109/ISNCC49221.2020.9297208
5. H. Lakhlef, G. Jaber, A. Bouabdallah, **F. D'Andreagiovanni**, A. Lounis,  
 "Distributed Time Slots Assignment Protocol in Dynamic Networks",  
**Proceedings of the 2020 IEEE Symposium on Computers and Communications (ISCC)**, IEEE Xplore, 2020, DOI:  
 10.1109/ISCC50000.2020.9219697
6. L. Chiaraviglio, **F. D'Andreagiovanni**, F. Idzikowski, A. V. Vasilakos,  
 "Minimum cost design of 5G networks with UAVs, tree-based optical backhauling, microgeneration and  
 batteries",  
**Proceedings of the 21st International Conference on Transparent Optical Networks - ICTON2019**, IEEE Xplore,  
 2019, DOI: 10.1109/ICTON.2019.8840395
7. T. Bauschert, **F. D'Andreagiovanni**, A. Kassler, C. Wang,  
 "A Matheuristic for Green and Robust 5G Virtual Network Function Placement",  
**Applications of Evolutionary Computation - EvoApplications 2019**, Springer Lecture Notes in Computer Science,  
 vol. 11454, 430-438, 2019, DOI: 10.1007/978-3-030-16692-2\_29
8. C. Wang, **F. D'Andreagiovanni**, D. Nace,  
 "Solving a resource allocation problem in RFB-based 5G wireless networks",  
**Proceedings of BALKANCOM 2019** (International Balkan Conference on Communications and Networking), 2019
9. A. Trotta, **F. D'Andreagiovanni**, M. Di Felice, E. Natalizio, K. Chowdhury,  
 "When UAVs ride a bus: Towards energy-efficient city-scale video surveillance",  
**IEEE INFOCOM 2018 (IEEE International Conference on Computer Communications)**, IEEE Xplore, 2018, DOI:  
 10.1109/INFOCOM.2018.8485863
10. A. Baumgartner, T. Bauschert, **F. D'Andreagiovanni**, V. Reddy,  
 "Towards Robust Network Slice Design Under Correlated Demand Uncertainties",  
**IEEE ICC 2018 (IEEE International Conference on Communications)**, IEEE Xplore, 2018, DOI:  
 10.1109/ICC.2018.84226182018
11. L. Chiaraviglio, **F. D'Andreagiovanni**, G. Siderotti, N. Blefari Melazzi, S. Salsano,  
 "Optimal Design of 5G Superfluid Networks: Problem Formulation and Solutions",  
**Proc. of ICIN 2018 (21st Conference on Innovation in Clouds, Internet and Networks)**, DOI:  
 10.1109/ICIN.2018.8401628, IEEE Xplore, 2018  
 Premiato con l' ICIN Best Paper Award 2018
12. **F. D'Andreagiovanni**, A. Nardin,  
 "A fast metaheuristic for the design of DVB-T2 networks",  
**EvoApplications 2018: Applications of Evolutionary Computation**, Springer Lecture Notes in Computer Science  
 vol. 10784, pp. 141-155, 2018, DOI: 10.1007/978-3-319-77538-8\_11  
 Premiato con l' EvoStar - EvoApplications Best Paper Award 2018
13. L. Amorosi, L. Chiaraviglio, **F. D'Andreagiovanni**, N. Blefari Melazzi  
 "Energy-efficient Mission Planning of UAVs for 5G Coverage in Rural Zones",  
**Proc. of IEEE ICEE 2018 (IEEE International Conference on Environmental Engineering)**, IEEE Xplore, DOI:  
 10.1109/EE1.2018.8385250, 2018
14. **F. D'Andreagiovanni**, H. Lakhlef, A. Nardin,  
 "A Hybrid MIP-based Heuristic for the Optimal Design of DVB-T2 Networks",  
**IEEE ATC 2018 (15th IEEE International Conference on Advanced and Trusted Computing)**, IEEE Xplore, DOI:  
 10.1109/SmartWorld.2018.00265, 2018
15. **F. D'Andreagiovanni**, D. Nace, M. Pioro, M. Poss, M. Shehaj, A. Tomaszewski,  
 "On survivable robust FSO network design",

**Proc. of RNDM 2017 (9th International Workshop on Resilient Networks Design and Modeling)**, IEEE Xplore, IEEE, 2017, DOI: 10.1109/RNDM.2017.8093027

Premiato con l' RNDM 2017 Best Paper Award

16. **F. D'Andreagiovanni**, D. Nace, A. Nardin, E. Natalizio,  
"Robust relay node placement in body area networks by heuristic min-max regret"  
**Proc. of BALKANCOM 2017 (International Balkan Conference on Communications and Networking)**, 2017
17. **F. D'Andreagiovanni**, R. Garroppo, M.G. Scutellà,  
"Power Savings with Data Rate Guarantee in Dense WLANs",  
**Proc. of MoWNet 2017 (International Conference on Selected Topics in Mobile and Wireless Networking)**, IEEE Xplore, 2017, DOI: 10.1109/MoWNet.2017.8045946
18. **F. D'Andreagiovanni**, A. Nardin, E. Natalizio,  
"A fast ILP-based Heuristic for the robust design of Body Wireless Sensor Networks",  
In: G. Squillero and K. Sim (Eds.) **EvoApplications 2017, Part I, Springer Lecture Notes in Computer Science** 10199, 1–17, 2017, DOI: 10.1007/978-3-319-55849-3\_16
19. **F. D'Andreagiovanni**, A. Gleixner,  
"Towards an accurate solution of wireless network design problems",  
**Proceedings of the 2016 International Symposium on Combinatorial Optimization (ISCO)**,  
Springer Lecture Notes in Computer Science, vol. 9849, 135-147, 2016, DOI: 10.1007/978-3-319-45587-7\_12
20. **F. D'Andreagiovanni**, G. Caire,  
"An Unconventional Clustering Problem: User Service Profile Optimization",  
**Proc. of the 2016 IEEE International Symposium on Information Theory (ISIT)**, IEEE Xplore, DOI: 10.1109/ISIT.2016.7541420
21. **F. D'Andreagiovanni**, F. Mett, J. Pulaj,  
"Towards the integration of Power-Indexed Formulations in Multi-architecture Connected Facility Location Problems for the optimal design of hybrid fiber-wireless access networks",  
**Proc. of the "5th Student Conference on Operational Research (SCOR 2016)"**, 2016 , OASlcs, Schloss Dagstuhl, DOI: 10.4230/OASlcs.SCOR.2016.8
22. V. H. Tanzil, P. Farkas, **F. D'Andreagiovanni**, R. Freund,  
"Cost Optimized Planning of Fixed-Wireless Hybrid Access Networks",  
**Proc. of the 10th ITG Conference on Broadband Coverage in Germany**, ISBN: 978-3-8007-4193-9 IEEE Xplore, 2016
23. **F. D'Andreagiovanni**, F. Mett, J. Pulaj,  
"An (MI)LP-based Primal Heuristic for 3-Architecture Connected Facility Location in Urban Access Network Designs",  
**Proc. of EvoStar - EvoApplications 2016** Vol. 9597, pp. 283-298, Springer Lecture Notes in Computer Science, Springer, 2016, DOI: 10.1007/978-3-319-31204-0\_19  
Finalista dell'EvoApplications Best Paper Award 2016 (7 candidati tra i 75 paper della conferenza)
24. **F. D'Andreagiovanni**, J. Krolikowski, J. Pulaj  
"A hybrid primal heuristic for Robust Multiperiod Network Design",  
**Applications of Evolutionary Computation, Springer Lecture Notes in Computer Science** 8602, pp. 15-26, 2014, DOI: 10.1007/978-3-662-45523-4\_2  
Premiato con l'EvoStar-EvoComNet Best Paper Award 2014
25. A. Zakrewska, **F. D'Andreagiovanni**, S.R. Ruepp, M.S. Berger,  
"Biobjective Optimization of Radio Access Technology Selection and Resource Allocation in Heterogeneous Wireless Networks",  
**Proceedings of WiOpt-RAWNET/WNC3 2013, 11th International Symposium on Modeling & Optimization in Mobile, Ad Hoc & Wireless Networks (WiOpt) 2013 - 9th International Workshop on Resource Allocation, Cooperation and Competition in Wireless Networks**, IEEE, pp. 652-658, Tsukuba, Japan, 2013, Electronic ISBN: 978-3-901882-54-8

26. A. Bley, **F. D'Andreagiovanni**, D. Karch  
 "Scheduling technology migration in WDM Networks",  
**Proc. of the 14th ITG Symposium on Photonic Networks**, pp. 1-5, ISBN: 978-3-8007-3503-7, 2013
27. **F. D'Andreagiovanni**, A. Raymond,  
 Multiband Robust Optimization and its Adoption in Harvest Scheduling,  
**FORMATH, Workshop on Forest Resources and Mathematical Modelling**, 2013, Fukushima, Japan, DOI:  
 10.15684/formath.13.97
28. C. Büsing, **F. D'Andreagiovanni**, A. Raymond,  
 "0–1 Multiband Robust Optimization"  
**Operations Research Proceedings 2013**, pp. 89-95, Springer, 2014, DOI: 10.1007/978-3-319-07001-8\_13
29. C. Büsing, **F. D'Andreagiovanni**,  
 "New results about multi-band uncertainty in Robust Optimization",  
**Proceedings of SEA 2012, 11th Symposium on Experimental Algorithms**, Springer Lecture Notes in Computer  
 Science 7276, pp. 63–74, Bordeaux, France, 2012, DOI: 10.1007/978-3-642-30850-5\_7
30. C. Büsing, **F. D'Andreagiovanni**,  
 "A new theoretical framework for Robust Optimization under multi-band uncertainty",  
**Operations Research Proceedings 2012**, pp. 115-121, Springer, 2013, DOI: 10.1007/978-3-319-00795-3\_17
31. **F. D'Andreagiovanni**,  
 "A hybrid exact-ACO algorithm for the joint scheduling, power and cluster assignment in cooperative wireless  
 networks",  
**Proceedings of BIONETICS 2012**, Springer Lecture Notes of the Institute for Computer Sciences, Social Informatics  
 and Telecommunications Engineering 134, pp. 3-17, Springer, 2014, DOI: 10.1007/978-3-319-06944-9\_1
32. **F. D'Andreagiovanni**, C. Mannino, A. Sassano,  
 "Negative Cycle Separation in Wireless Network Design"  
**Proc. of INOC 2011, 5th International Conference on Network Optimization**, Springer Lecture Notes in Computer  
 Science 6701, pp. 51–56, Springer, 2011, DOI: 10.1007/978-3-642-21527-8\_7
33. **F. D'Andreagiovanni**,  
 "On Improving the Capacity of Solving Large-scale Wireless Network Design Problems by Genetic Algorithms",  
**Proc. of EvoApplications 2011**, Springer Lecture Notes in Computer Science 6625, pp. 11–20, Torino, Italy, 2011,  
 DOI: 10.1007/978-3-642-20520-0\_2
34. A. Bley, **F. D'Andreagiovanni**, A. Hanemann,  
 "Robustness in Communication Networks: Scenarios and Mathematical Approaches"  
**Proc. of the 12th ITG Symposium on Photonic Networks**, Paper 21, pp. 1-8, 2011, ISBN:978-3-8007-3346-0

## **Monografie**

1. **F. D'Andreagiovanni**,  
 "New perspectives on Wireless Network Design - Strong, stable and robust 0-1 models by Power Discretization",  
 Collana Studi e Ricerche, **Sapienza Università Editrice**, 2012, ISBN: 978-88-95814-79-7

## **Contributi in volume**

1. **F. D'Andreagiovanni**, C. Mannino,  
 "An Optimization Model for WiMAX Network Planning",  
**WiMAX Network Planning and Optimization**, (ed. Y. Zhang), Chapt. 18, pp. 369-386, Auerbach Publications, 2009

## **Tesi di Dottorato**

1. **F. D'Andreagiovanni**,  
 "Pure 0-1 programming approaches to Wireless Network Design",  
**Tesi di Dottorato in Ricerca Operativa**, Sapienza Università di Roma, Roma, Italia, 2010

**Premiata con:**

- **l' INFORMS Doctoral Dissertation Award for Operations Research in Telecommunications 2010**
- **il Premio Tesi di Dottorato Sapienza Università di Roma 2012**

## Responsabilità accademiche internazionali

### 1. Responsabilità editoriali:

- Da 07/2021, **Associate Editor** della rivista **Soft Computing (Impact Factor: 3.643)** (Springer)
- Da 01/2020, **Membro dell'Editorial Board** della rivista **Applied Soft Computing (Impact Factor: 6.725)** (Elsevier)
- Da 08/2020, **Membro dell'Editorial Board** della rivista **International Telecommunications Union Journal on Future and Evolving Technologies (ITU J-FET)** (Editor-in-Chief: Ian F. Akyildiz (International Telecommunications Union - ITU))
- Da 05/2020, **Membro dell'Editorial Board** della rivista **Frontiers in Communications and Networks (Chief Editor: Mohamed-Slim Alouini)** (Frontiers)
- Da 12/2019, **Membro dell'Editorial Board** della rivista **Telecom (MDPI)**
- Da 02/2020, **Topic Editor** della rivista **Algorithms (MDPI)**
- **Volume Editor** dei seguenti volume di **Lecture Notes in Computer Science (Springer)**:
  1. Springer LNCS volume n. 10784 (2018): "Applications of Evolutionary Computation - 21st International Conference, EvoApplications 2018 Parma, Italy, April 4-6, 2018 Proceedings"
  2. Springer LNCS volume n. 10199 (2017): "Applications of Evolutionary Computation - 20th European Conference, EvoApplications 2017 Amsterdam, The Netherlands, April 19-21, 2017 Proceedings, Part I"
  3. Springer LNCS volume n. 10200 (2017): "Applications of Evolutionary Computation - 20th European Conference, EvoApplications 2017 Amsterdam, The Netherlands, April 19-21, 2017 Proceedings, Part II"

### 2. Responsabilità in Scientific Society:

- **2016-2020: Member of the Council** dell'**INFORMS Section on Telecommunications & Network Analytics** (INFORMS - Institute for Operations Research and the Management Sciences, USA)

### 3. Partecipazione al Collegio dei Docenti di Dottorati di Ricerca:

- **Dal 2020:** Membro del Collegio dei Docenti del Dottorato di Ricerca in Ingegneria Civile, **Università Roma Tre**, Roma, Italia
- **07-09/2021: Membro della Commissione** del concorso per l'ammissione al Dottorato di Ricerca in Ingegneria Civile, Università Roma Tre, Roma, Italia (XXXVII ciclo formativo – A.A. 2021 /2022)

### 4. Partecipazione a giurie di valutazione di Tesi di Dottorato in Italia e Ph.D. Thesis all'estero

- **2021: membro della Giuria**, Ph.D. Program dell'École doctorale n° 71 "Sciences pour l'Ingénieur", **Université de Technologie de Compiègne** (Francia), Tesi: "Contribution to Robust Network Optimization", candidato: C. Wang
- **2019: valutatore esterno, Dottorato in Informatica e Automazione, Università Roma Tre** (Roma), Tesi: "Rail Yield Management. Trenitalia Case", candidato: A. Berto
- **2018: membro della Giuria**, Ph.D. Program dell'École doctorale n° 71 "Sciences pour l'Ingénieur", **Université de Technologie de Compiègne** (Francia), Tesi: "Adaptive solutions for data sharing in vehicular networks", candidato: H.P. de Moraes
- **2017: membro della Giuria**, Ph.D. in Business Administration, **ESSEC Business School** (Parigi, Francia), Tesi: "Robust Optimization for Discrete structures and Non-linear impact of Uncertainty", candidato: J.C. Espinoza

### 5. Workshop Chair and Organizer:

- **MaLeN 2020** - Workshop on Machine Learning and Optimization for Communications Networks (workshop della 26th Conference of the Open Innovations Association FRUCT 2020, sponsored by IEEE, Trento, Italia)
- **OptiComNet 2019** - Workshop on Optimization in Computing and Networking (workshop della 4th IEEE International Conference on Computing Communication and Security - **IEEE ICCCS-2019**, Roma, Italia)

### 6. Stream Chair and Organizer in International Conferences:

- **Chair** dello Stream on Telecommunications, **EURO 2019** (Dublino, Irlanda)
- **Chair** dello Stream on Telecommunications, **EURO 2018** (Valencia, Spagna)
- **Co-Chair** di **EvoStar - EvoComNet 2018** (Parma, Italia)

- **Co-Chair** dello Stream on Telecommunications, **IFORS 2017** (Quebec City, Canada)
- **Co-Chair** di **EvoStar - EvoComNet 2017** (Amsterdam, Paesi Bassi)
- **Cluster Co-Chair** dell'INFORMS Technical Section on Telecommunications Cluster at the **INFORMS Annual Meeting 2016** (Nashville, USA)
- **Cluster Co-Chair** dell'INFORMS Technical Section on Telecommunications Cluster at the **INFORMS Annual Meeting 2015** (Philadelphia, USA)

#### 7. Publication Chair:

- **BALKANCOM 2018** - Second International Balkan Conference on Communications and Networking (Podgorica, Montenegro)

#### 8. Publicity Chair:

- **WiMob 2020** - 16th International Conference on Wireless and Mobile Computing, Networking and Communications (Thessaloniki, Greece)

#### 9. Valutatore di proposte di progetto di ricerca:

- 2018: invitato a valutare proposta di progetto per **FONDECYT (Chilean National Fund for Scientific and Technological Development)**, Cile

#### 10. Valutatore di produzioni scientifiche accademiche nazionali:

- 06/2021: invitato a svolgere il ruolo di **External Referee** per l'ANVUR (Agenzia nazionale di valutazione del sistema universitario) per la **VQR 2015-2019**, Italia

#### 11. TECHNICAL PROGRAM COMMITTEE MEMBER in conferenze internazionali:

1. **DRCN 2022 - 18th International Conference on the Design of Reliable Communication Networks** (Vilanova, Spain)
2. **ICIN 2021** (25th Conference on Innovation in Clouds, Internet and Networks) (Paris, France)
3. **IEEE IHTC 2021** (2021 IEEE International Humanitarian Technology Conference) (virtual)
4. **AICCSA 2021 - 18th ACS/IEEE International Conference on Computer Systems and Applications** (Tangier, Morocco)
5. **BALKANCOM 2021 - 4th International Balkan Conference on Communications and Networking**, (Novi Sad, Serbia)
6. **DRCN 2021 - 17th International Conference on the Design of Reliable Communication Networks** (Milano, Italy)
7. **Student Workshop - ACM GECCO 2021** (Genetic and Evolutionary Computation Conference) (Lille, France)
8. **SoSE 2021** - 16th Annual Conference on System of Systems Engineering (SoSE), (virtual conference)
9. **ICIN 2021 (24th Conference on Innovation in Clouds, Internet and Networks)** (Paris, France)
10. **INOC 2021 - International Network Optimization Conference** (Aachen, Germany)
11. **WISARN 2021 – IEEE INFOCOM Workshop (14th International Workshop on Wireless Sensor, Robot and UAV Networks)**, (virtual conference)
12. **PDEIM 2021 - ACM GECCO Workshop** - ACM Workshop on Parallel and Distributed Evolutionary Inspired Methods (Lille, France)
13. **EuCNC 2021 - 30th European Conference on Network and Communications**, (Porto, Portugal)
14. **DaIS 2021 - IEEE ISCC Workshop** (1st IEEE International Workshop on Distributed and Intelligent Systems, in conjunction with the 26th IEEE Symposium on Computers and Communications, Athens, Greece)
15. **EvoStar - EvoApplications 2021** (Seville, Spain)
16. **ITNAC 2021 – 31st International Telecommunication Networks and Application Conference**, (Sydney, Australia)
17. **IWROV 2021- 2021 International Workshop on Remote Operated Vehicle** (Singapore)
18. **IEEE iSCI 2020 - 8<sup>th</sup> IEEE International Conference on Smart City and Informatization** (Guangzhou, China)
19. **IEEE INFOCOM 2020 - IEEE Conference on Computer Communications** (Beijing, China)
20. **DRCN 2020 - 16th International Conference on the Design of Reliable Communication Networks** (Milano, Italy)
21. **ICIN 2020 (23rd Conference on Innovation in Clouds, Internet and Networks)** (Paris, France)
22. **RNDM 2020** - 12th International Workshop on Resilient Networks Design and Modeling (Edmonton, Canada)

23. **PDEIM 2020 - ACM GECCO Workshop** - ACM Workshop on Parallel and Distributed Evolutionary Inspired Methods (Cancun, Mexico)
24. **EuCNC 2020 - 29th European Conference on Network and Communications**, (Dubrovnik, Croatia)
25. **BIOMA 2020 (9th International Conference on Bioinspired Optimisation Methods and Their Applications)** (Bruxelles, Belgium)
26. **ITNAC 2020 – 30th International Telecommunication Networks and Application Conference**, (Melbourne, Australia)
27. **ICCCS-2020**, 5th International Conference on Computing, Communication and Security (Patna, India)
28. **EvoStar - EvoApplications 2020** (Valencia, Spain)
29. **BALKANCOM 2020 - 4th International Balkan Conference on Communications and Networking**, (Novi Sad, Serbia)
30. **IntelliSys 2020 (Intelligent Systems Conference 2020)** (Amsterdam, Netherlands)
31. **ICSAI 2020 (7th International Conference on Systems and Informatics )** (Jiaxing, China)
32. **VEHITS 2020 (6th International Conference on Vehicle Technology and Intelligent Transport Systems)** (Prague, Czech Republic)
33. **FTC 2020 (Future Technologies Conference 2020)** (Vancouver, Canada)
34. **TMA Conference 2019 - Network Traffic Measurement and Analysis Conference** (Paris, France)
35. **IEEE ICCCS 2019** - 4th IEEE International Conference on Communications, Computing and Security (*Roma, Italy*)
36. **INOC 2019 - International Network Optimization Conference** (Avignon, France)
37. **SMILING 2019 – IEEE INFOCOM Workshop (Workshop on Sustainable networking through Machine Learning and Internet of thiNGs)**, (Paris, France)
38. **DRCN 2019 - 15th International Conference on the Design of Reliable Communication Networks** (Coimbra, Portugal)
39. **EuCNC 2019 - 28th European Conference on Network and Communications**, (Valencia, Spain)
40. **ICIN 2019 (22nd Conference on Innovation in Clouds, Internet and Networks)** (Paris, France)
41. **RNDM 2019** - 11th International Workshop on Resilient Networks Design and Modeling (Nicosia, Cyprus)
42. **ITNAC 2019 - 29th International Telecommunication Networks and Application Conference**, (Auckland, New Zealand)
43. **BALKANCOM 2019 - Third International Balkan Conference on Communications and Networking**, (Skopje, Macedonia)
44. **WISARN 2018 – IEEE INFOCOM Workshop (Wireless Sensor, Robot and UAV Networks)**, (Honolulu, Hawaii)
45. **RoSe 2018 – IEEE PIMRC Workshop** (IEEE 29th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications, Workshop WS-10 on "Wireless Robots and Sensors Networks for Railway Systems"), (Bologna, Italy)
46. **PDEIM 2018 - ACM GECCO Workshop** - ACM Workshop on Parallel and Distributed Evolutionary Inspired Methods (Kyoto, Japan)
47. **RNDM 2018** - 10th International Workshop on Resilient Networks Design and Modeling (Longyearbyen - Svalbard, Norway)
48. **GECDSRM Workshop at ACM GECCO 2018** - ACM Workshop on Genetic and Evolutionary Computation in Defense, Security and Risk Management - SecDef (Kyoto, Japan)
49. **IEEE ATC 2018** - 15th IEEE International Conference on Advanced and Trusted Computing (Guangzhou, China)
50. **BELIEF 2018** - 5th International Conference on Belief Functions (Compiègne, France)
51. **SMPS 2018** - 9th International Conference on Soft Methods in Probability and Statistics (Compiègne, France)
52. **IEEE SoSe – 13th System of Systems Engineering Conference (SoSE 2018)**, (Paris, France)
53. **BALKANCOM 2018 - Second International Balkan Conference on Communications and Networking**, (Podgorica, Montenegro)
54. **EuCNC 2018 - 27th European Conference on Network and Communications**, (Ljubljana, Slovenia)
55. **MEDPOWER 2018 - 11th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion**, (Dubrovnik, Croatia)
56. **TMA Conference 2018 - Network Traffic Measurement and Analysis Conference**, (Vienna, Austria)

57. **ITNAC 2018 - 28th International Telecommunication Networks and Applications Conference** (Sydney, Australia)
58. **META 2018 - 7th International Conference on Metaheuristics and Nature Inspired Computing**, (Marrakech, Morocco)
59. **ICCS 2018 - International Conference on Computational Science**, (Wuxi, China)
60. **Soft 2017 - ITC Workshop** - Soft5 2017 Workshop at the **29th International Teletraffic Congress**, (Genova, Italy)
61. **PDEIM 2017 - ACM GECCO Workshop** - ACM Workshop on Parallel and Distributed Evolutionary Inspired Methods (Berlin, Germany)
62. **Workshop on Medical and HealthCare Applications of Evolutionary Computation at IEEE CEC 2017 - Congress on Evolutionary Computation** - (San Sebastián, Spain)
63. **INOC 2017 - International Network Optimization Conference** (Lisbon, Portugal)
64. **EvoStar - EvoApplications 2017** (Amsterdam, the Netherlands)
65. **ITC 2016 - 28th International Teletraffic Congress** (Würzburg, Germany)
66. **USRR 2016 - 4th International Workshop on Understanding the inter-play between Sustainability, Resilience, and Robustness in networks**, Halmstad, Sweden
67. **EvoStar - EvoApplications 2016** (Porto, Portugal)
68. **BIONETICS 2012** (Conference on Bio-Inspired Models of Network, Information, and Computing System, Lugano, Switzerland)

**12. Session Chair in numerose conferenze internazionali** (per esempio AIRO, BIONETICS, EvoStar, IEEE ICCCS, ISMP, MoWNeT, ROADef)

**13. Reviewer** per le seguenti riviste e conferenze scientifiche:

1. ACM Computing Surveys (ACM)
2. Ad Hoc Networks (Elsevier)
3. Algorithms (MDPI)
4. Annals of Operations Research (Springer)
5. Annals of Telecommunications (Springer)
6. Applied Soft Computing (Elsevier)
7. IEEE CEC - Congress on Evolutionary Computation (IEEE conference)
8. Computer Communications (Elsevier)
9. Computer Networks (Elsevier)
10. Computers & Operations Research (Elsevier)
11. Discrete Applied Mathematics (Elsevier)
12. Discrete Optimization (Elsevier)
13. Energies (MDPI)
14. EURO Journal on Computational Optimization (Springer)
15. European Journal of Operational Research (Elsevier)
16. Expert Systems with Applications (Elsevier)
17. ACM GECCO - The Genetic and Evolutionary Computation Conference (ACM conference)
18. IEEE Communications Magazine (IEEE)
19. IEEE INFOCOM (IEEE)
20. IEEE Transactions on Cognitive Communications and Networking (IEEE)
21. IEEE Transactions on Green Communications and Networking (IEEE)
22. IEEE Transactions on Mobile Computing (IEEE)
23. IEEE Transactions on Network and Service Management (IEEE)
24. IEEE Transactions on Parallel and Distributed Computing (IEEE)
25. Information and Computation (Elsevier)
26. Information Sciences (Elsevier)
27. IFIP Networking (IFIP conference)
28. International Journal of Interdisciplinary Telecommunications and Networking (IGI)
29. IPCO - Conference on Integer Programming and Combinatorial Optimization (top tier conference)
30. ISST - IEEE International Symposium on Telecommunication Technologies (IEEE conference)
31. ITC International Teletraffic Conference (conference)
32. ITSC - IEEE Intelligent Transportation Systems Conference (IEEE conference)
33. Journal of Experimental & Theoretical Artificial Intelligence (Taylor & Francis)

34. Journal of Network and Computer Applications (Elsevier)
35. JESTECH - Engineering Science and Technology, an International Journal (Elsevier)
36. Knowledge and Information Systems (Springer)
37. Omega (Elsevier)
38. Operations Research (INFORMS)
39. Operation Research Letters (Elsevier)
40. OSA/IEEE Journal of Optical Communication and Networking (IEEE)
41. PLOS One (PLOS)
42. RAIRO - Theoretical Informatics and Applications (EDP Sciences)
43. RNDM - International Workshop on Reliable Network Design and Modeling (conference)
44. Sensors (MDPI)
45. SN Computer Science (Springer Nature)
46. Sustainability (MDPI)
47. Telecommunication Systems (Springer)
48. Transactions on Emerging Telecommunications Technologies (Wiley)
49. Transportation Research Part B: Methodological (Elsevier)
50. Wireless Communications and Mobile Computing (Wiley)
51. WOCC - Wireless and Optical Communication Conference (conference)

## Presentazioni a conferenze e workshop (selezione)

1. Seek & Beautify: integrating UAVs in the optimal beautification of e-scooter sharing fleets, **IEEE MT-ITS 2021-7<sup>th</sup>** International IEEE Conference on Models and Technologies for Intelligent Transportation Systems (virtual, 2021)
2. A Robust Optimization Approach for Designing FTTx Networks Integrating Free Space Optics Under Weather Uncertainty, **ACM Q2SWinet 2020**, 16th ACM Symposium on QoS and Security for Wireless Mobile Networks, Alicante, Spain (2020)
3. A Robust Optimization approach to DVB-T Network Design, **FRUCT27**, 27th Conference of Open Innovations Association FRUCT, Trento, Italy (2020)
4. Night makes you beautiful: an optimization approach to overnight joint beautification and relocation in e-scooter sharing, **MFTS 2020**, Symposium on Management of Future Motorway and Urban Traffic Systems, Luxembourg (2020)
5. An optimization model for renting public parking slots to carsharing services, **AIIT 2nd International Congress on Transport Infrastructure and Systems in a changing world**, Rome, Italy (2019)
6. A Matheuristic for Green and Robust 5G Virtual Network Function Placement, **EvoStar 2019**, Leipzig, Germany (2019)
7. An optimization approach for balancing maintenance costs and electricity consumption in Cloud Data Centers, **PGMO 2018**, Paris, France (2018)
8. Zero-price Energy Offering by (Multiband) Robust Optimization, **VAME 2017** – Variational Analysis and Applications for Modelling of Energy Exchange, Perpignan, France (2017)
9. Power Savings with Data Rate Guarantee in Dense WLANs, **MoWNeT 2017**, Avignon, France (2017)
10. Zero-price Energy Offering by Robust Optimization, **COST Workshop**, Modena, Italy (2016)
11. Green Design of Wireless Local Area Networks by Multiband Robust Optimization, **INOC 2017**, Lisbon, Portugal (2017)
12. A fast ILP-based Heuristic for the robust design of Body Wireless Sensor Networks, **EvoStar 2017**, Amsterdam, The Netherlands (2017)
13. Green Design of Wireless Local Area Networks by Multiband Robust Optimization, **ROADEF 2017**, Metz, France (2017)
14. Zero-price Energy Offering by Robust Optimization, **EURO 2016**, Poznan, Poland (2016)
15. Multiband Robust Optimization for optimal energy offering under price uncertainty, **ROADEF 2016**, Compiègne, France (2016)

16. Revisiting the use of Robust Optimization in unit commitment problems under market price uncertainty, **AIRO 2015**, Pisa, Italy (2015)
17. GUB Covers and Power-Indexed formulations for Wireless Network Design, **INFORMS Annual Meeting 2014**, San Francisco, USA (2014)
18. A Unified View on Tight Formulations for the Unit Commitment Problem with Optimal Transmission Switching, **PGMO-COPI 2014**, Paris, France (2014)
19. Multiband Robust Optimization, **International Workshop on Risk Management**, Tokyo, Japan (2014)
20. 0-1 Multiband Robust Optimization, **OR2013**, Rotterdam, Netherland (2013)
21. Multiband Robust Optimization, **MIP2013**, Workshop on Mixed Integer Programming, Madison, USA (2013)
22. Multi-band Robustness II: Constructing the Uncertainty Set, **INOC 2013**, International Network Optimization Conference, , Tenerife, Spain (2013)
23. Multi-band Robustness III: Application to Network Design Problems, **INOC 2013**, International Network Optimization Conference, , Tenerife, Spain (2013)
24. On the introduction of Multiband Uncertainty in Robust Optimization, **SMC 2013**, Stochastic Model Conference, Berlin, Germany (2013)
25. Robust Optimization under Multi-band uncertainty, **5th ROBUKOM Workshop**, Berlin, Germany (2012)
26. Robust Optimization under Multi-band Uncertainty, **AIRO 2012**, the 43rd Annual Conference of the Italian Operational Research Society, Salerno, Italy (2012)
27. A hybrid exact-ACO algorithm for the joint scheduling, power and cluster assignment in cooperative wireless networks, **Bionetics 2012**, the 7th Conference on Bio-Inspired Models of Network, Information, and Computing System, Lugano, Switzerland (2012)
28. On the adoption of multi-band uncertainty in robust network design, **ISMP 2012**, the 21st International Symposium on Mathematical Programming, Berlin, Germany (2012)
29. New results about multi-band uncertainty in Robust Optimization, **SEA 2012**, the 11th International Symposium on Experimental Algorithms Bordeaux, France (2012)
30. Introducing multi-band uncertainty in Robust Optimization, **4th ROBUKOM Workshop**, Munich, Germany (2012)
31. On the solution of Wireless Network Design Problems by Cycle Deletion, **INFORMS Telecom 2012**, the 11th INFORMS Telecommunications Conference, Boca Raton, USA (2012)
32. Exploiting dominance criteria in the design of survivable multi-layer networks, **INFORMS Telecom 2012**, the 11th INFORMS Telecommunications Conference, Boca Raton, USA (2012)
33. Solving Wireless Network Design Problems by Cycle Deletion, **HPSC 2012**, High Performance Scientific Computing, Hanoi, Vietnam (2012)
34. Improving the Efficiency of Algorithms for Survivable Multi-layer Network Design, **HPSC 2012**, High Performance Scientific Computing, Hanoi, Vietnam (2012)
35. On developing strong 0-1 formulations for Wireless Network Design, **ESF-JSPS Mathematics for Innovation: Large and Complex Systems**, Tokyo, Japan (2012)
36. ROBUKOM - Efficient design of survivable multi-layer networks, **3rd ROBUKOM Workshop**, Chemnitz, Germany (2011)
37. Negative Cycle Separation in Wireless Network Design, **INOC 2011**, International Network Optimization Conference, Hamburg, Germany (2011)
38. New models for the design of survivable multi-layer networks, **2nd ROBUKOM Workshop**, Berlin, Germany (2011)
39. New Pure 0-1 Programming Approaches to Wireless Network Design, **SNOW 2011**, the 2nd Nordic Workshop on System and Network Optimization for Wireless, Stöten, Sweden
40. On Improving the Capacity of Solving Large-scale Wireless Network Design Problems by Genetic Algorithms, **EvoStar 2011**, Torino, Italy (2011)
41. ROBUKOM - Efficient design of multi-layer networks, **1st ROBUKOM Workshop**, Aachen, Germany (2010)
42. Pure 0-1 Programming Approaches to Wireless Network Design, **INFORMS Telecom 2010**, the 10th INFORMS Telecommunication Conference 2010, Montreal, Canada (2010)

43. Robust Wireless Network Planning, **AIRO 2009**, the 40th Annual Conference of the Italian Operational Research Society, Siena, Italy (2009),
44. Power-Indexed Formulations for Wireless Network Design, **AIRO 2008**, the 40th Annual Conference of the Italian Operational Research Society, Ischia, Italy (2008)
45. Strengthening MILP formulations for Wireless Network Design, **APICE Workshop 2008**, Roma, Italy (2008)

## Seminari su invito (selezione)

1. An optimization approach for balancing maintenance costs and electricity consumption in Cloud Data Centers, **Dipartimento di Informatica, Università degli Studi di Milano**, Milano, Italy (2019)
2. New optimization models for UAV systems management, **Laboratory ICUBE, University of Strasbourg**, Strasbourg, France (2019)
3. An introduction to Network Design under Uncertainty with special focus on Robust Optimization, **Summer School on Network Performance Evaluation and Optimization**, Technical University Chemnitz (2017)
4. Robust Zero-price Energy Offering, **ESSEC Business School**, Paris, France (2017)
5. Multiband Robust Optimization: theory and applications, **University of Rome Tor Vergata**, Rome, Italy (2017)
6. Multiband Robust Optimization: theory and applications, **Seminaire Parisienne d'Optimisation**, Paris, France (2017)
7. Multiband Robust Optimization: theory and applications, **Université Paris - Dauphine**, Paris, France (2016)
8. Theory and applications of Multiband Robust Optimization, **Université de Technologie de Compiègne**, Compiègne, France (2016)
9. Multiband Robust Optimization for Energy Offering, **SINTEF Oslo**, Oslo, Norway (2015)
10. Multiband Robust Optimization: theory and applications, **Università di Pisa**, Pisa, Italy (2015)
11. Real-world applications of Network Optimization, **RWTH Aachen**, Aachen, Germany (2015)
12. Multiband Robust Optimization of Networks, **DFG Research Center MATHEON**, Berlin, Germany (2015)
13. Multiband Robust Optimization: theory and applications, **INRIA Lille - Nord Europe**, Lille, France (2015)
14. Multiband Robust Optimization: theory and applications, **LIPN-University Paris 13**, Paris, France (2015)
15. 0-1 Multiband Robust Optimization and its application in Forest Scheduling, **Institute of Statistical Mathematics** Tokyo, Japan (2014)
16. Cycle of seminars on Stochastic and Robust Optimization, **SINTEF Oslo**, Oslo, Norway (2013)
17. New approaches to Multiperiod Network Design, **Warsaw Institute of Technology**, Warsaw, Poland (2013)
18. Multiband Robust Optimization: theory and applications, **Technical University Wien**, Vienna, Austria (2013)
19. Multiband Robust Optimization: theory and applications, **Austrian Institute of Technology**, Vienna, Austria (2013)
20. Multiband Robust Optimization: theory and applications, **IDSIA - Istituto Dalle Molle di Studi sull'Intelligenza Artificiale** (Lugano, Switzerland) (2012)
21. Power-Indexed Formulations for Wireless Network Design, **RWTH Aachen**, Aachen, Germany (2011)
22. Power-Indexed Formulations for Wireless Network Design, **Zuse Institute Berlin** (Berlin, Germany) (2010)
23. Pure 0-1 Programming approaches to Wireless Network Design, **Zuse Institute Berlin** (Berlin, Germany) (2010)
24. Pure 0-1 Programming approaches to Wireless Network Design, **Sapienza Università di Roma** (Roma, Italy) (2009)
25. Optimal bidding on keywords auctions, **Columbia University in the City of New York** (New York, USA) (2009)

## Invited Research Visiting Periods

2017 - 2020

Numerosi inviti per research visit alle seguenti università francesi, italiane e tedesche:

- **University Paris Dauphine (Laboratory LAMSADE)**, Host: Prof. F. Furini, Paris, France
- **University of Lorraine (Laboratory LORIA)**, Host: Prof. E. Natalizio, Nancy, France
- **University of Strasbourg (Laboratory ICUBE)**, Host: Prof. T. Noel, Strasbourg, France
- **Technische Universität Berlin (Global Production Engineering)**, Host: Prof. H. Kohl, Berlin, Germany
- **Technische Universität Chemnitz (Chair of Communications Networks)**, Host: Prof. T. Bauschert, Chemnitz, Germany
- **Università Roma Tor Vergata (Dip. di Ingegneria Elettronica)**, Host: Prof. L. Chiaraviglio, Rome, Italy
- **Università Roma Tre (Dipartimento di Ingegneria)**, Host: Prof. S. Carrese, Rome, Italy

10/2017	ESSEC Business School (Paris, France), Host: Prof. L. Alfandari
01.03,05,09/2017	Università Roma Tor Vergata (Rome, Italy), Host: Prof. L. Chiaraviglio
11/2016	Technical University of Chemnitz (Chemnitz, Germany), Host: Prof. T. Bauschert
06/2016	Free University of Bruxelles (Bruxelles, Belgium), Host: Prof. B. Fortz
04/2016	École Polytechnique (Palaiseau, France), Host: Prof. L. Liberti
04/2016	École des Mines de Nantes (Nantes, France), Host: Prof. A. Dolgui
02/2016	Université Paris - Dauphine (Paris, France), Host: Dr. J. Lang
02/2016	Université de Technologie de Compiègne (Compiègne, France), Host: Prof. D. Nace
12/2015	SINTEF (Oslo, Norway), Host: Prof. C. Mannino
11/2015	Università di Pisa (Pisa, Italy), Host: Prof. M.G. Scutellà
07-09/2015	IASI-CNR (Rome, Italy), Host: Dr. G. Felici
04/2015	INRIA Lille Nord Europe (Lille, France), Host: Dr. L. Brotcorne
03/2015	LIX Ecole Polytechnique (Paris, France), Host: Dr. C. D'Ambrosio
03/2015	LIPN-University Paris 13 (Paris, France), Host: Prof. R. W. Calvo
12/2014-01/2015	IASI-CNR (Rome, Italy), Host: Dr. G. Felici
12/2014	SINTEF (Oslo, Norway), Host: Prof. C. Mannino
07-08/2014	IASI-CNR (Rome, Italy), Host: Dr. G. Felici
04/2014	Sapienza Università di Roma, DIAG (Roma, Italy), Host: Prof. R. Bruni
03/2014	Institute of Statistical Mathematics (Tokyo, Japan), Host: Prof. A. Yoshimoto
09/2013	SINTEF (Oslo, Norway), Host: Prof. C. Mannino
10/2013	IASI-CNR (Rome, Italy), Host: Dr. G. Felici
03/2013	Institute of Statistical Mathematics (Tokyo, Japan), Host: Prof. A. Yoshimoto
09/2013	Warsaw Institute of Technology (Warsaw, Poland), Host: Prof. M. Pioro
03/2013	Technical University Wien (Vienna, Austria), Host: Prof. G. Raidl
03/2013	Austrian Institute of Technology (Vienna, Austria), Host: Dr. J. Puchinger
12/2012	IDSIA - Istituto Dalle Molle di Studi sull'Intelligenza Artificiale (Lugano, Switzerland) Host: Prof. L. Gambardella
11/2012	Lehrstuhl II für Mathematik, RWTH Aachen (Aachen, Germany), Host: Prof. A.M.C.A. Koster
09/2012	Dept. of Computer and System Science, Sapienza Università di Roma (Roma, Italy), Host: Prof. A. Sassano
12/2011-01/2012	Dept. of Computer and System Science, Sapienza Università di Roma (Roma, Italy), Host: Prof. A. Sassano
06/2011-07/2011	Lehrstuhl II für Mathematik, RWTH Aachen (Aachen, Germany), Host: Prof. A.M.C.A. Koster
05/2010-07/2010	Dept. of Industrial Engineering and Operations Research, Columbia University in the City of New York (New York, USA), Host: Prof. D. Bienstock

## Capacità e competenze personali

- Lingue

Lingua madre Italiano

Altre lingue

	COMPRENSIONE		PARLATO		PRODUZIONE SCRITTA
	Ascolto	Lettura	Interazione	Produzione orale	
Inglese	C2	C2	C2	C2	C2
Francese	B2	B2	B2	B2	B2
Tedesco	B2	B2	B2	B2	B2

Livelli: A1/A2: Utente base - B1/B2: Utente intermedio - C1/C2: Utente avanzato  
Quadro Comune Europeo di Riferimento delle Lingue

- Capacità e competenze tecniche:

- linguaggi di programmazione: C/C++, Java, Python;
- sistemi Operativi: Linux, Windows;
- software di ottimizzazione: AMPL, Gurobi, IBM ILOG Cplex, LP-Solve;
- SQL; Database and Data Warehouse Systems;
- ottima conoscenza degli applicativi Microsoft Office (Word, Excel, Access, PowerPoint), Internet Browsers e Mail User Agent

## Referenze

- Prof. Stefano Carrese** Professore Ordinario di Ingegneria Civile  
Dipartimento di Ingegneria  
**Università degli Studi Roma Tre, Roma**  
Indirizzo: via Vito Volterra 62, 00146 Roma  
Recapito telefonico: 06 57333410  
Email: stefano.carrese@uniroma3.it
- Prof. Carlo Mannino** 1) Senior Research Scientist  
**Department of Mathematics and Cybernetics, SINTEF, Oslo, Norvegia**  
2) Adjunct Professor of Statistics and Data Science  
**Department of Mathematics, University of Oslo, Oslo, Norvegia**  
(già Professore Associato di Ricerca Operativa presso il Dipartimento di Informatica e Sistemistica di Sapienza Università di Roma, Roma)  
Indirizzo: Forskningsveien 1, 0373 Oslo  
Recapito telefonico: +47 41588551  
Email: carlo.mannino@sintef.no
- Prof. Ralf Borndörfer** 1) Head of the Department of Network Optimization  
**Zuse Institute Berlin (ZIB), Berlino, Germania**  
2) Professor of Discrete Mathematics and Discrete Optimization  
**Freie Universität Berlin, Berlino, Germania**  
Indirizzo: Takustrasse 7, 14195 Berlino, Germania  
Recapito telefonico: +49 (0) 30 84185243  
Email: borndorfer@zib.de
- Prof. Antonio Sassano** 1) Professore Ordinario di Ricerca Operativa  
**Dipartimento di Ingegneria Informatica, Automatica e Gestionale, Sapienza Università di Roma, Roma**  
2) Presidente  
**Fondazione Ugo Bordoni, Roma**  
Indirizzo: via Ariosto 25, 00185 Roma  
Recapito telefonico: +39 77274080  
Email: sassano@dis.uniroma.it
- Prof. Luca Chiaraviglio** Professore Associato di Ingegneria delle Telecomunicazioni  
Dipartimento di Ingegneria Elettronica  
**Università di Roma Tor Vergata, Roma**  
Indirizzo: via del Politecnico 1, 00133 Roma  
Recapito telefonico: 06 7259450  
Email: luca.chiaraviglio@uniroma2.it
- Prof. Enrico Natalizio** 1) Principal Researcher  
Communications and Networking Department  
Autonomous Robotics Research Center  
**Technology Innovation Institute, Abu Dhabi, Emirati Arabi Uniti**  
2) Full Professor  
**Laboratoire LORIA, Université de Lorraine, Nancy, Francia**  
Email: enrico.natalizio@loria.fr

Dichiaro che tutto quanto dichiarato nel presente curriculum vitae corrisponde a verità, ai sensi degli articoli 46 e 47 del D.P.R. 445 del 2000.

Luogo e data,  
COMPIEGNE, 08/12/2021

# Pierangelo Di Sanzo

## Curriculum Vitæ

### Posizione corrente

- **Ricercatore (RTD-B) - SSD INF/01**, presso il Dipartimento di Ingegneria e Scienze dell'Informazione e Matematica, Università degli studi dell'Aquila.

### Abilitazioni

- **Abilitazione scientifica nazionale (ASN)**, settore concorsuale 01/B1 - Informatica - II fascia (conseguita il 29/04/2021).
- **Abilitazione scientifica nazionale (ASN)**, settore concorsuale 09/H1 - Sistemi di elaborazione delle informazioni - II fascia (conseguita il 13/11/2020).
- **Abilitazione alla professione di ingegnere**, Sezione A - settore dell'informazione.

### Titoli di studio

- marzo 2012 **Dottorato di ricerca in Ingegneria Informatica**, Sapienza, University of Rome.  
Titolo della Tesi: Performance Models of Concurrency Control Protocols for Transaction Processing Systems
- febbraio 2008 **Laurea specialistica in Ingegneria Informatica**, Sapienza, University of Rome, Voto: 110/110 e lode.  
Titolo della Tesi: Modellazione e valutazione di sistemi transazionali basati su controllo di concorrenza multiversione
- luglio 2005 **Laurea in Ingegneria Informatica**, Università di "Napoli Federico II", Voto: 102/110.  
Titolo della Tesi: Un tool di sviluppo, validazione e controllo per progetti di automazione
- luglio 1996 **Diploma di maturità scientifica**, Liceo scientifico "G. Peano", Marsiconuovo (Pz), Voto: 60/60.

### Incarichi di insegnamento universitari

#### Docente dei seguenti corsi:

- 2021 – 2022 **Basi di Dati (inizio del corso previsto nel 2° semestre didattico 2021/22 - Marzo 2022)**, Corso di laurea in informatica, 6 CFU, Università degli studi dell'Aquila.
- 2020 – 2021 **Software Design for Robotics**, Corso di laurea magistrale in informatica, 6 CFU, Università degli studi dell'Aquila.
- 2020 – 2021 **Sistemi informativi per l'impresa in rete**, Corso di laurea magistrale in ingegneria informatica, 6 CFU, Università degli Studi Guglielmo Marconi.

- 2019 – 2020 **Sistemi informativi per l'impresa in rete**, *Corso di laurea magistrale in ingegneria informatica*, 6 CFU, Università degli Studi Guglielmo Marconi.
- 2018 – 2019 **Data Centers and High Performance Computing**, *Corso di laurea magistrale in ingegneria informatica*, 3 CFU, Sapienza Università di Roma.
- 2018 – 2019 **Sistemi informativi per l'impresa in rete**, *Corso di laurea magistrale in ingegneria informatica*, 6 CFU, Università degli Studi Guglielmo Marconi.
- 2017 – 2018 **Data Centers and High Performance Computing**, *Corso di laurea magistrale in ingegneria informatica*, 3 CFU, Sapienza Università di Roma (incluso anche nel percorso formativo del dottorato di ricerca in ingegneria informatica).
- 2009 – 2010 **Basi di dati**, *Corso di laurea in ingegneria informatica*, 6 CFU, Sapienza Università di Roma (sede di Rieti).
- 2008 – 2009 **Basi di dati**, *Corso di laurea in ingegneria informatica*, 6 CFU, Sapienza Università di Roma (sede di Rieti).

[Docente dei seguenti seminari didattici:](#)

- 2016 – 2017 **Data Centers and High Performance Computing – Topic: Transactional Memories**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2016 – 2017 **Capacity planning – Topic: performance and reliability evaluation: techniques and practice**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2015 – 2016 **Data Centers and High Performance Computing – Topic: Transactional Memories**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2015 – 2016 **Capacity planning – Topic: performance and reliability evaluation: techniques and practice**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2014 – 2015 **Concurrent and Parallel Programming – Topic: Transactional Memories**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2014 – 2015 **Capacity planning – Topic: performance and reliability evaluation: techniques and practice**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2013 – 2014 **Concurrent and Parallel Programming – Topic: Transactional Memories**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2013 – 2014 **Capacity planning – Topic: performance and reliability evaluation: techniques and practice**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2012 – 2013 **Concurrent and Parallel Programming – Topic: Transactional Memories**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2012 – 2013 **Capacity planning – Topic: performance and reliability evaluation: techniques and practice**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2011 – 2012 **Concurrent and Parallel Programming – Topic: Transactional Memories**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.
- 2011 – 2012 **Capacity planning – Topic: performance and reliability evaluation: techniques and practice**, *Corso di laurea magistrale in ingegneria informatica*, Sapienza Università di Roma.

[Tutor per i seguenti corsi:](#)

- 2009 – 2010 **Fondamenti di informatica**, *Corso di laurea in ingegneria informatica*, Sapienza Università di Roma (sede di Rieti).
- 2009 – 2010 **Caccolatori elettronici**, *Corso di laurea in ingegneria informatica*, Sapienza Università di Roma (sede di Rieti).
- 2008 – 2009 **Sistemi operativi**, *Corso di laurea in ingegneria informatica*, Sapienza Università di Roma (sede di Rieti).
- 2008 – 2009 **Fondamenti di informatica**, *Corso di laurea in ingegneria informatica*, Sapienza Università di Roma (sede di Rieti).

## Incarichi accademici e di ricerca

- febbraio 2020 **Ricercatore**, (RTD-B) - SSD INF/01, Dipartimento di Ingegneria e Scienze oggi dell'Informazione e Matematica, Università degli studi dell'Aquila.
- febbraio 2020 **Assegnista di Ricerca**, DIAG – Dipartimento di ingegneria informatica, automatica gennaio 2021 e gestionale, Sapienza Università di Roma.  
Progetto di ricerca: Ottimizzazione delle prestazioni e dell'efficienza energetica di applicazioni multi-threaded
- ottobre 2018 **Ricercatore**, ISSNOVA - Institute for Sustainable Society and Innovation.
- dicembre 2019 Progetto di ricerca: Evolutionary Air Traffic Management (Progetto EU H2020 - SESAR). Studio di tecniche basate su algoritmi evolutivi per ottimizzare le performance dei sistemi di controllo del traffico aereo
- luglio 2018 **Assegnista di Ricerca**, DIAG – Dipartimento di ingegneria informatica, automatica giugno 2019 e gestionale, Sapienza Università di Roma.  
Progetto di ricerca: Sviluppo e sperimentazione di tecniche per la regolazione dell'utilizzo di risorse di calcolo su sistemi multi-core ed ambienti cloud
- marzo 2018 **Assegnista di Ricerca**, DIAG – Dipartimento di ingegneria informatica, automatica giugno 2018 e gestionale, Sapienza Università di Roma.  
Progetto di ricerca: Tecniche di analisi e valutazione delle performance applicate al sistema informativo per la cognizione penale del Ministero della giustizia
- settembre 2016 **Assegnista di Ricerca**, DIAG – Dipartimento di ingegneria informatica, automatica agosto 2017 e gestionale, Sapienza Università di Roma.  
Progetto di ricerca: Tecniche di analisi e valutazione delle performance applicate al sistema informativo per la cognizione penale del Ministero della giustizia
- giugno 2014 **Ricercatore**, IRIANC - International Research Institute for Autonomic Network maggio 2016 Computing, Monaco, Germania.  
Progetto di ricerca: Panacea – Proactive Autonomic Management of Cloud Resources (EU FP7 Project)
- agosto 2013 **Ricercatore**, CINFAI—Consorzio Interuniversitario Nazionale per la Fisica delle febbraio 2015 Atmosfere e delle Idrosfere, Roma, Italia.  
Progetto di ricerca: SIGMA - Sistema Integrato di sensori in ambiente Cloud per la Gestione Multirischio Avanzata (PON2007-2013)
- maggio 2013 **Ricercatore**, INESC-ID - Instituto de Engenharia de Sistemas e Computadores giugno 2013 Investigacao e Desenvolvimento, Lisbona, Portogallo.  
Progetto di ricerca: Performance Forecasting of Distributed Transactional Memory Systems
- marzo 2011 **Ricercatore**, CINI - National Interuniversity Consortium for Informatics, Roma, aprile 2013 Italia.  
Progetto di ricerca: Cloud-TM: A novel programming paradigm for cloud computing (EU FP7)

- marzo 2010 **Assegnista di Ricerca**, *DIS – Dipartimento di Informatica e sistemistica*, Sapienza  
 febbraio 2011 Università di Roma.  
 Progetto di ricerca: Analisi delle performance ed ottimizzazione di memorie software transazionali
- marzo 2009 **Assegnista di Ricerca**, *Facoltà di Ingegneria*, Sapienza Università di Roma, settore  
 febbraio 2010 ING-INF/05.  
 Progetto di ricerca: Modellazione delle performance di sistemi di basi di dati
- giugno 2008 **Ricercatore**, *CINI - National Interuniversity Consortium for Informatics*, Roma,  
 aprile 2009 Italia.  
 Progetto di ricerca: Osservambiente, un sistema innovativo di monitoraggio per la governance territoriale
- novembre 2005 **Collaboratore di ricerca**, *DIS – Dipartimento di Informatica e sistemistica*, Uni-  
 giugno 2006 versity of Naples "Federico II".  
 Progetto di ricerca: progettazione e sviluppo di UniSim, una piattaforma per il design ed il testing software di automazione portatile

## Partecipazione a Progetti nazionali ed internazionali

- **Co-coordinatore del progetto Earth in the Cloud**, *finanziato da Regione Lazio (POR-FESR 2014-2020, Progetti di Gruppi di ricerca 2020)*, il progetto Earth in the Cloud costituisce la naturale evoluzione del precedente progetto XCloud, e mira a sviluppare una nuova tecnologia che, attraverso tecniche basate su modelli matematici ed intelligenza artificiale, ha l'obiettivo di automatizzare, ottimizzare e minimizzare i costi del processo di sviluppo, messa in produzione ed operatività di applicazioni che elaborano dati di Osservazione della Terra su piattaforme di cloud computing.  
 Partner di progetto: Università degli Studi di Roma Tor Vergata, Sapienza Università di Roma
- **Coordinatore del progetto XCloud – Automated and cost-effective earth observation data processing in the cloud ([www.lockless.it](http://www.lockless.it))**, *finanziato da EU Copernicus Incubation Programme*, il progetto XCloud ha avuto l'obiettivo di realizzare una piattaforma innovativa per automatizzare ed ottimizzare i costi di processamento su piattaforme cloud di grandi set di dati satellitari per l'osservazione della terra.  
 Partner di progetto: Lockless srl (a startup of Sapienza and Tor Vergata University of Rome), Sapienza Università di Roma
- **Ricercatore in ambito del progetto, EvoATM Evolutionary Air Traffic Management - A modelling framework to assess the impact of ATM evolutions ([www.evoatm-project.eu/](http://www.evoatm-project.eu/))**, *progetto EU H2020 - SESAR*, EvoATM si è focalizzato sullo studio di tecniche di simulazione agent-based ed algoritmi evolutivi per analizzare e valutare il comportamento dei sistemi di controllo del traffico aereo ed ottimizzarne le prestazioni sia a livello di singoli componenti che dell'intero sistema.  
 Partner di progetto: Centro Italiano Ricerche Aerospaziali (Italy), Aslogic (Spain), Issnova (Italy), Pedece (Portugal), Crida (Spain), UAB Universitat Autònoma de Barcelona (Spain)
- **Membro del comitato di gestione della European COST Action EURO-TM – Transactional Memories: Foundations, Algorithms, Tools, and Applications ([www.eurotm.org](http://www.eurotm.org))**, *finanziato da European Cooperation in Science and Technology*, EURO-TM è stata un'azione COST volta a creare e coordinare una rete di ricercatori ed esperti di vari paesi europei che lavorano su aspetti interdisciplinari sul tema delle memorie transazionali.  
 Partner di progetto: hanno partecipato vari gruppi di ricerca ed aziende provenienti da oltre 15 differenti paesi europei

- **Coordinatore del gruppo di ricerca dell'Università degli Studi di Roma La Sapienza, composto da 5 borsisti, in ambito di un progetto finalizzato all'assessment tecnico del sistema informativo per la cognizione penale del Ministero della giustizia, progetto finanziato in ambito di una convenzione stipulata tra il Ministero della giustizia e l'Università degli Studi di Roma La Sapienza**

- **Ricercatore e coordinatore dei task 3.2 e 3.3 in ambito del progetto URBEM – URban Environment Management ([www.geo-k.co/urbem/](http://www.geo-k.co/urbem/)), finanziato da POR-FESR Lazio**, URBEM è stato un progetto finalizzato allo sviluppo di servizi di osservazione della terra basati sulle tecniche di machine learning per l'analisi di dati satellitari. Un aspetto chiave dell'attività di ricerca è stato lo studio e la sperimentazione di tecniche per l'allocazione dinamica e proattiva delle risorse di calcolo al fine di minimizzare il costo di utilizzo e di offrire servizi pay-per-use su infrastrutture cloud..

Partner di progetto: GEO-K srl, C-SIG srl, In-TIME srl, Sapienza University of Rome

- **Ricercatore in ambito del progetto PANACEA – Proactive Autonomic Management of Cloud Resources ([projects.laas.fr/panacea-cloud](http://projects.laas.fr/panacea-cloud))**, progetto EU FP7, l'obiettivo di Panacea è stato quello di sviluppare tecniche, basate sull'apprendimento automatico, per la gestione autonoma e proattiva delle risorse di calcolo in ambiente cloud al fine di contrastare la violazione degli SLA ed incrementare performance e disponibilità delle applicazioni su infrastrutture cloud geograficamente distribuite.

Partner di progetto: Centre National De La Recherche Scientifique (France), International Research Institute For Autonomic Network Computing (Irianc), Ev (Germany), Atos Spain Sa (Spain), Universidad Complutense De Madrid (Spain), Qos Design Sarl (France), Ibm Israel - Science And Technology Ltd (Israel), Imperial College Of Science Technology And Medicine (United Kingdom), Atos Consulting Canarias Sa Unipersonal (Spain)

- **Ricercatore e coordinatore del task 3.1 in ambito del progetto Cloud-TM. A Novel Programming Paradigm for the Cloud ([www.cloudtm.eu](http://www.cloudtm.eu))**, Progetto EU FP7, l'obiettivo di Cloud-TM è stato lo sviluppo di una piattaforma middleware basata su approcci di calcolo transazionale volta a facilitare lo sviluppo e la riduzione dei costi operativi e di gestione delle applicazioni cloud..

Partner di progetto: INESC-ID (Portugal), CINI (IT), Algorithmica S.r.l (IT), Red Hat Limited (IE)

- **Ricercatore in ambito del progetto ARISTOS – Autonomic Replication of Software Transactional memories ([aristos.gsd.inesc-id.pt](http://aristos.gsd.inesc-id.pt))**, finanziato da Fundação para a Ciência e a Tecnologia, Portogallo, ARISTOS è stato un progetto congiunto tra INESC-ID (Lisbona) e l'Università degli Studi di Roma La Sapienza focalizzato sulla progettazione e l'implementazione di una piattaforma STM (Software Transactional Memory) distribuita ed auto-ottimizzante.

Partner di progetto: INESC-ID (Portugal), DIS – Sapienza Università di Roma

- **Ricercatore e coordinatore del task 1.4b in ambito del progetto SIGMA: Cloud-based Integrated Sensors System for Advanced Multirisk Management**, finanziato da Programma Operativo Nazionale (PON2007-2013), l'obiettivo di SIGMA è stato quello di sviluppare una piattaforma middleware per l'acquisizione, l'integrazione ed il processamento di dati eterogenei, provenienti da varie reti di sensori, al fine di fornire informazioni utili per il monitoraggio, la previsione e la gestione delle situazioni di rischio, attraverso servizi forniti a cittadini ed imprese, sia pubblici che privati.

Partner di progetto: Università degli Studi di Messina, Università degli studi di Catania, CINFAI, CNIT, Fondazione Centro Studi Investimenti Sociali Censis, Delisa Sud srl., Selex ES S.p.A., Neodata Group s.r.l., STMicronics, Istituto Nazionale di Geofisica e Vulcanologia, Engineering Ingegneria Informatica S.p.a., CNR, Insirio, Xenia Progetti srl

- **Rincercatore in ambito del progetto Osservambiente, un sistema innovativo di monitoraggio per la governance territoriale**, finanziato da Regione Campania (Misura 3.17 del POR Campania 2000/2006), Osservambiente è stato un progetto di ricerca per sviluppare un sistema di monitoraggio ambientale a supporto della governance territoriale, nel quale sono stati progettati e valutati schemi di gestione di dati ed algoritmi per supportare l'ottimizzazione di missioni di monitoraggio eseguite da veicoli attrezzati con varie tipologie di sensori per il monitoraggio del territorio..

Partner di progetto: NERGAL s.r.l., CINI

## Contributo al trasferimento tecnologico e creazione di nuove imprese

settembre 2017 **Socio fondatore di Lockless S.r.l. ([www.lockless.it](http://www.lockless.it)), startup dell'Università degli Studi di Roma La Sapienza.**

Lockless S.r.l. ha come principale missione il trasferimento tecnologico dei risultati di ricerca ai fini dello sviluppo di prodotti software per architetture di calcolo ad alte prestazioni e di supporto allo sviluppo di applicazioni e piattaforme di simulazione real-time .

## Partecipazione a comitati editoriali, organizzazione di conferenze ed attività di revisione di articoli scientifici

### Comitati editoriali:

- **Guest Editor**, Special Issue "Analysis and Optimization for Energy Efficient Computer and Network Systems", *Journal: Energies*, Publisher: MDPI, Submission deadline prevista per il 31/01/2022.

### Organizzazione di conferenze internazionali

- **Program Co-Chair**, 15th IEEE International Symposium on Network Computing and Applications (NCA 2016).
- **Artifact Evaluation Committee Member**, Principles and Practice of Parallel Programming 2022 Conference (PPOPP 2022).
- **Program Committee Member**, Workshop on Performance and Energy-efficiency in Concurrent Systems (PECS 2021), co-located with the 12th ACM/SPEC International Conference on Performance Engineering.
- **Program Committee Member**, 10th International Conference on Advances in System Simulation (SIMUL 2018).
- **Program Committee Member**, 16th IEEE International Symposium on Network Computing and Applications (NCA 2017).
- **Publication Chair**, 15th IEEE International Symposium on Network Computing and Applications (NCA 2016).
- **Program Committee Member**, 4th IEEE Symposium on Network Cloud Computing and Applications (NCCA 2015).

### Revisore per le seguenti riviste internazionali:

- Journal of Parallel and Distributed Computing (Elsevier)
- Transactions on Architecture and Code Optimization (ACM)
- Transactions on Modeling and Computer Simulation (ACM)
- IEEE Access (IEEE)
- Simulation Modelling Practice and Theory (Elsevier)
- Concurrency and Computation: Practice and Experience (Wiley)
- International Journal of Parallel Emergent and Distributed Systems (Taylor Francis)

- The Open Cybernetics and Systemics Journal (Bentham Open)
- Neural Network World

#### Revisore per le seguenti conferenze e workshop internazionali:

- Workshop on Performance and Energy-efficiency in Concurrent Systems (PECS 2021)
- 10th International Conference on Advances in System Simulation (SIMUL 2018)
- 16th IEEE International Symposium on Network Computing and Applications (NCA 2017)
- 9th International Conference on Reversible Computation (RC 2017)
- 15th IEEE International Symposium on Network Computing and Applications (NCA 2016)
- 4th IEEE Symposium on Network Cloud Computing and Applications (NCCA 2015)
- 3rd IEEE Symposium on Network Cloud Computing and Applications (NCCA 2014)
- 10th International Conference on Autonomic and Autonomous Systems (ICAS 2014)
- 21st IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS 2013)
- 3rd International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH 2013)
- 10th International Conference on Services Computing (SCC 2013)
- 12th IEEE International Symposium on Network Computing and Applications (NCA 2013)

## Attività di supervisione e co-supervisione di studenti

### Supervisione e co-supervisione di tesi di laurea

Sono stato supervisore e co-supervisore di oltre 30 tesi di laurea in ambito di corsi di laurea magistrale/specialistica in ingegneria informatica

### Co-supervisione di studenti di dottorato

Ho svolto attività di co-supervisione di 3 studenti di dottorato in ingegneria informatica

## Attività di consulenza

- |               |  |
|---------------|--|
| giugno 2020   | <b>Ministero della Giustizia – DGSIA (Direzione generale per i sistemi informativi automatizzati).</b>   |
| novembre 2020 | Consulente, per conto del CINI, in ambito del progetto "Evoluzione dell'architettura dei sistemi informatici per la giustizia civile e penale ed infrastruttura telematica" per l'attività di modellazione di processi di area civile e penale del Ministero della Giustizia, mediante linguaggio BPMN, ai fini della futura reingegnerizzazione dei sistemi informatici del DGSIA |
| aprile 2019   | <b>TDGroup Italia.</b>   |
| giugno 2019   | Consulente tecnico di parte in ambito della gara di appalto per la realizzazione e gestione del sistema cloud della pubblica amministrazione della regione Toscana   |
| giugno 2016   | <b>Ministero della Giustizia – DGSIA (Direzione generale per i sistemi informativi automatizzati).</b>   |
| dicembre 2016 | Consulente, per conto della CRUI (Conferenza dei Rettori delle Università italiane ) per l'analisi e valutazione dei sistemi software a supporto del sistema informativo della cognizione penale   |

- novembre 2011 **SELEX Service Management – Finmeccanica Group.**
- febbraio 2012 Analisi a valutazione del SISTRI (sistema di controllo della tracciabilità dei rifiuti) commissionato dal Ministero dell'Ambiente, in particolare in relazione alla caratterizzazione del carico di sistema, alla pianificazione ed esecuzione dei test prestazionali, alla valutazione dei risultati
- luglio 2011 **Poste Italiane S.p.A.**
- settembre 2011 Analisi e valutazione del sistema informativo centrale di Poste Italiane (SDP – Service Delivery Platform) in seguito dei malfunzionamenti generali avvenuti nel giugno 2011

---

## Allegati

- 1 Lista delle pubblicazioni selezionate
- 2 Presentazioni di lavori

www.AlboPretorionline.it

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae  
in base al D. Lgs. 196/2003.

Roma, 9 dicembre 2021

Pierangelo Di Sanzo

## Allegato 1: Lista delle pubblicazioni ed indicatori

### Indicatori

- **Banca dati: Scopus.**  
Pubblicazioni: 43, Citazioni totali: 297, H-index:: 11
- **Banca dati: Google Scholar.**  
Citazioni totali: 530, H-index:: 13

### International Journal Articles

- [1] E. Silvestri, A. Pellegrini, P. Di Sanzo, and F. Quaglia. Effective runtime management of tasks and priorities in gnu openmp applications. *IEEE Transactions on Computers*, 2021, To appear.
- [2] Stefano Conoci, Pierangelo Di Sanzo, Alessandro Pellegrini, Bruno Ciciani, and Francesco Quaglia. On power capping and performance optimization of multi-threaded applications. *Concurrency and Computation: Practice and Experience*, 33(13):e6205, 2021.
- [3] Pierangelo Di Sanzo, Dimiter R. Avresky, and Alessandro Pellegrini. Autonomic rejuvenation of cloud applications as a countermeasure to software anomalies. *Software: Practice and Experience*, 51(1):46–71, 2021.
- [4] A. Pellegrini, P. D. Sanzo, B. Bevilacqua, G. Duca, D. Pascarella, R. Palumbo, J. J. Ramos, M. À. Piera, and G. Gigante. Simulation-based evolutionary optimization of air traffic management. *IEEE Access*, 8:161551–161570, 2020.
- [5] Romolo Marotta, Davide Tiriticco, Pierangelo Di Sanzo, Alessandro Pellegrini, Bruno Ciciani, and Francesco Quaglia. Mutable locks: Combining the best of spin and sleep locks. *Concurrency and Computation: Practice and Experience*, 32(22):e5858, 2020.
- [6] Matteo Principe, Tommaso Tocci, Pierangelo Di Sanzo, Francesco Quaglia, and Alessandro Pellegrini. A distributed shared memory middleware for speculative parallel discrete event simulation. *ACM Trans. Model. Comput. Simul.*, 30(2), March 2020.
- [7] P. Di Sanzo, A. Pellegrini, M. Sannicandro, B. Ciciani, and F. Quaglia. Adaptive model-based scheduling in software transactional memory. *IEEE Transactions on Computers*, 69(5):621–632, May 2020.
- [8] P. Di Sanzo. Analysis, classification and comparison of scheduling techniques for software transactional memories. *IEEE Transactions on Parallel and Distributed Systems*, 28(12):3356–3373, 2017.
- [9] D. Rughetti, P. Di Sanzo, B. Ciciani, and F. Quaglia. Machine learning-based thread-parallelism regulation in software transactional memory. *Journal of Parallel and Distributed Computing*, 109:208–229, 2017.
- [10] P. Di Sanzo, F. Quaglia, B. Ciciani, A. Pellegrini, D. Didona, P. Romano, R. Palmieri, and S. Peluso. A flexible framework for accurate simulation of cloud in-memory data stores. *Simulation Modelling Practice and Theory*, 58:219–238, 2015.
- [11] P. Di Sanzo, B. Ciciani, R. Palmieri, F. Quaglia, and P. Romano. On the analytical modeling of concurrency control algorithms for software transactional memories: The case of commit-time-locking. *Performance Evaluation*, 69(5):187–205, 2012.

- [12] A. Pellegrini and P. Di Sanzo. On the optimization of collaborative kerbside waste collection. *WSEAS Transactions on Environment and Development*, 13:66–74, 2017.
- Book Chapters**
- [13] J. Barreto, P. Di Sanzo, R. Palmieri, and P. Romano. *Cloud-TM: An elastic, self-tuning transactional store for the cloud*, volume 2. IGI Global, 2014.
- [14] Diego Rughetti, Pierangelo Di sanzo, Francesco Quaglia, and Bruno Ciciani. *Machine Learning Based Dynamic Reconfiguration of Distributed Data Management Systems*. John Wiley & Sons, Ltd, 2015.
- [15] D. Rughetti, P.D. Sanzo, A. Pellegrini, B. Ciciani, and F. Quaglia. Tuning the level of concurrency in software transactional memory: An overview of recent analytical, machine learning and mixed approaches. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 8913:395–417, 2015.
- International Conference Articles**
- [16] S. Economo, E. Silvestri, P. Di Sanzo, A. Pellegrini, and F. Quaglia. Model-based proactive read-validation in transaction processing systems. In *2018 IEEE 24th International Conference on Parallel and Distributed Systems (ICPADS)*, pages 481–488, 2018.
- [17] Stefano Conoci, Davide Cingolani, Pierangelo Di Sanzo, Alessandro Pellegrini, Bruno Ciciani, and Francesco Quaglia. A power cap oriented time warp architecture. In *Proceedings of the 2018 ACM SIGSIM Conference on Principles of Advanced Discrete Simulation*, PADS. ACM, May 2018.
- [18] Stefano Conoci, Pierangelo Di Sanzo, Bruno Ciciani, and Francesco Quaglia. Adaptive performance optimization under power constraint in multi-thread applications with diverse scalability. In *Proceedings of the 2018 ACM/SPEC International Conference on Performance Engineering*, ICPE '18, pages 16–27, New York, NY, USA, 2018. ACM.
- [19] Simone Economo, Emiliano Silvestri, Pierangelo Di Sanzo, Alessandro Pellegrini, and Francesco Quaglia. Prompt application-transparent transaction revalidation in software transactional memory. In *Proceedings of the 16th IEEE International Symposium on Network Computing and Applications*, NCA, pages 114–119. IEEE Computer Society, October 2017.
- [20] Dimitar R. Avresky, Alessandro Pellegrini, and Pierangelo Di Sanzo. Machine learning-based management of cloud applications in hybrid clouds: a hadoop case study. In *Proceedings of the 16th IEEE International Symposium on Network Computing and Applications*, NCA, pages 114–119. IEEE Computer Society, October 2017.
- [21] E. Silvestri, S. Economo, P. Di Sanzo, A. Pellegrini, and F. Quaglia. Preemptive software transactional memory. In *Proceedings of the 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing*, CCGrid '17, pages 294–303, Piscataway, NJ, USA, 2017. IEEE Press.
- [22] P. Di Sanzo and B. Ciciani. Cpu-core frequency scaling for efficient thread scheduling in transactional memories. In *International Conference on High Performance Computing and Simulation, HPCS 2016*, pages 42–47. Institute of Electrical and Electronics Engineers Inc., 2016.
- [23] A. Pellegrini, P. Di Sanzo, and D.R. Avresky. Proactive cloud management for highly heterogeneous multi-cloud infrastructures. In *Proceedings of the IEEE 30th*

*International Parallel and Distributed Processing Symposium, IPDPS 2016*, pages 1311–1318. Institute of Electrical and Electronics Engineers Inc., 2016.

- [24] P. Di Sanzo, M. Sannicandro, B. Ciciani, and F. Quaglia. Markov chain-based adaptive scheduling in software transactional memory. In *Proceedings of the IEEE 30th International Parallel and Distributed Processing Symposium, IPDPS 2016*, pages 373–382. Institute of Electrical and Electronics Engineers Inc., 2016.
- [25] D.R. Avresky, P. Di Sanzo, A. Pellegrini, B. Ciciani, and L. Forte. Proactive scalability and management of resources in hybrid clouds via machine learning. In Busnel Y. Avresky D.R., Avresky D.R., editor, *Proceedings of the IEEE 14th International Symposium on Network Computing and Applications, NCA 2015*, pages 114–119. Institute of Electrical and Electronics Engineers Inc., 2016.
- [26] D. R. Avresky, P. Di Sanzo, A. Pellegrini, B. Ciciani, and L. Forte. Proactive scalability and management of resources in hybrid clouds via machine learning. In *2015 IEEE 14th International Symposium on Network Computing and Applications*, pages 114–119, 2015.
- [27] P. Di Sanzo, A. Pellegrini, and D.R. Avresky. Machine learning for achieving self-\* properties and seamless execution of applications in the cloud. In *Proceedings of the IEEE 4th Symposium on Network Cloud Computing and Applications, NCCA 2015*, pages 51–58. Institute of Electrical and Electronics Engineers Inc., 2015.
- [28] A. Pellegrini, P. Di Sanzo, and D.R. Avresky. A machine learning-based framework for building application failure prediction models. In *Proceedings of the IEEE 29th International Parallel and Distributed Processing Symposium Workshops, IPDPSW 2015*, pages 1072–1081. Institute of Electrical and Electronics Engineers Inc., 2015.
- [29] D. Rughetti, P.D. Sanzo, B. Ciciani, and F. Quaglia. Dynamic feature selection for machine-learning based concurrency regulation in stm. In *Proceedings of the 22nd Euromicro International Conference on Parallel, Distributed, and Network-Based Processing, PDP 2014*, pages 68–75. IEEE Computer Society, 2014.
- [30] P. Di Sanzo, F. Molfese, D. Rughetti, and B. Ciciani. Providing transaction class-based qos in in-memory data grids via machine learning. In *Proceedings of the IEEE 3rd Symposium on Network Cloud Computing and Applications, NCCA 2014*, pages 46–53. IEEE Computer Society, 2014.
- [31] D. Rughetti, P. Di Sanzo, and A. Pellegrini. Adaptive transactional memories: Performance and energy consumption tradeoffs. In *Proceedings of the IEEE 3rd Symposium on Network Cloud Computing and Applications, NCCA 2014*, pages 105–112. IEEE Computer Society, 2014.
- [32] D. Rughetti, P.D. Sanzo, B. Ciciani, and F. Quaglia. Analytical/ml mixed approach for concurrency regulation in software transactional memory. In *Proceedings of 14th IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing, CCGrid 2014*, pages 81–91. IEEE Computer Society, 2014.
- [33] P. Di Sanzo, F.D. Re, D. Rughetti, B. Ciciani, and F. Quaglia. Regulating concurrency in software transactional memory: An effective model-based approach. In *Proceedings of International Conference on Self-Adaptive and Self-Organizing Systems, SASO*, pages 31–40, 2013.
- [34] A. Porfirio, A. Pellegrini, P. Di Sanzo, and F. Quaglia. Transparent support for partial rollback in software transactional memories. In *Proceedings of the 19th International Conference on Parallel and Distributed Computing, Euro-Par 2013*, pages 583–594. Springer Berlin Heidelberg, 2013.

- [35] P. Di Sanzo, F. Antonacci, B. Ciciani, R. Palmieri, A. Pellegrini, S. Peluso, F. Quaglia, D. Rughetti, and R. Vitali. A framework for high performance simulation of transactional data grid platforms. In Himmelspace J. Cai W., Vanmechelen K., editor, *Proceedings of the 6th International Conference on Simulation Tools and Techniques, SIMUTools 2013*, pages 63–72. ICST, 2013.
- [36] P. Di Sanzo, D. Rughetti, B. Ciciani, and F. Quaglia. Auto-tuning of cloud-based in-memory transactional data grids via machine learning. In *Proceedings - IEEE 2nd Symposium on Network Cloud Computing and Applications, NCCA 2012*, pages 9–16, 2012.
- [37] R. Palmieri, P. Di Sanzo, F. Quaglia, P. Romano, S. Peluso, and D. Didona. Integrated monitoring of infrastructures and applications in cloud environments. In *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, volume 7155 LNCS, pages 45–53, 2012.
- [38] D. Rughetti, P. Di Sanzo, B. Ciciani, and F. Quaglia. Machine learning-based self-adjusting concurrency in software transactional memory systems. In *Proceedings of the 2012 IEEE 20th International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2012*, pages 278–285, 2012.
- [39] B. Ciciani, D. Didona, P. Di Sanzo, R. Palmieri, S. Peluso, F. Quaglia, and P. Romano. Automated workload characterization in cloud-based transactional data grids. In *Proceedings of the 2012 IEEE 26th International Parallel and Distributed Processing Symposium Workshops, IPDPSW 2012*, pages 1525–1533, 2012.
- [40] P. Di Sanzo, B. Ciciani, R. Palmieri, F. Quaglia, and P. Romano. Analytical modeling of commit-time locking algorithms for software transactional memories. In *Proceedings of the 36th International Conference Computer Measurement Group*, 2010.
- [41] P. Di Sanzo, R. Palmieri, B. Ciciani, F. Quaglia, and P. Romano. Analytical modeling of lock-based concurrency control with arbitrary transaction data access patterns. In *Proceedings of the 1st Joint WOSP/SIPEW International Conference on Performance Engineering, WOSP/SIPEW'10*, pages 69–78, 2010.
- [42] P. Di Sanzo, B. Ciciani, F.Q. Sapienza, and P. Romano. A performance model of multi-version concurrency control. In *Proceedings of the IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2008*, 2008.
- [43] G. De Tommasi, P. Di Sanzo, and A. Pironti. A graphical tool for design portable automation software. In *IFAC Proceedings Volumes (IFAC-PapersOnline)*, volume 7, pages 440–445, 2006.

### Conferenze e workshop internazionali:

- **CPU-core Frequency Scaling for Efficient Thread Scheduling in Transactional Memories**, *International Workshop on Autonomic High Performance Computing (AHPC 2016)*, Innsbruck, Austria, July 2016.
- **Markov Chain-based Adaptive Scheduling in Software Transactional Memory**, *30th IEEE International Parallel & Distributed Processing Symposium (IPDPS 2016)*, Chicago, USA, May 2016.
- **Machine Learning for Achieving Self-\* Properties and Seamless Execution of Applications in the Cloud**, *4th Symposium on Network Cloud Computing and Applications (NCCA 2015)*, Munich, Germany, June 2015.
- **Providing transaction class-based QoS in in-memory data grids via machine learning**, *3rd IEEE Symposium on Network Cloud Computing and Applications*, Rome, Italy, February 2014.
- **Adaptive transactional memories: Performance and energy consumption tradeoffs**, *3rd IEEE Symposium on Network Cloud Computing and Applications*, Rome, Italy, February 2014.
- **Providing Transaction Class-Based QoS in in-Memory Data Grids Via Machine Learning**, *Euro-TM Workshop on Transactional Memory*, Amsterdam, The Netherlands, April 2014.
- **Regulating Concurrency in Software Transactional Memory: An Effective Model-based Approach**, *7th IEEE International Conference on Self-Adaptive and Self-Organizing Systems*, Philadelphia, PA, USA, September 2013.
- **Performance Modeling and Replication of Software Transactional Memories**, *Euro-TM 1st Plenary Meeting*, Paris, France, May 2011.
- **Analytical Modeling of Commit-Time-Locking Algorithms for Software Transactional Memories**, *36th International Computer Measurement Group Conference (CMG)*, Orlando, USA, December 2010.

Procedura pubblica di selezione a n° 1 posto di ricercatore universitario a tempo determinato, ai sensi dell'Art. 24, c. 3 lettera b) della L. 240/2010, da assumere con contratto di lavoro subordinato, per la durata di tre anni per il settore concorsuale 09/H1, S.S.D. ING-INF/05 presso il Dipartimento di Economia, bandita con decreto rettorale disponibile sul sito pubblico <http://www.albopretorionline.it/uniroma/alboente.aspx> ed il cui avviso è pubblicato sulla Gazzetta Ufficiale n. 89 del 09/11/2021.

## Curriculum di Attività Scientifica e Didattica

### Part I – General Information

Full Name	Valsamis Ntouskos
Date of Birth	
Place of Birth	
Citizenship	
Address	
Mobile Phone Number	
E-mail	
Spoken Languages	Greek (mother tongue), English (C2 – Self-evaluation according to Language Skills Self-Assessment Grid of European Language Portfolio, C2 – Self-evaluation according to Language Skills Self-Assessment Grid of European Language Portfolio), Italian (C2 – Self-evaluation according to Language Skills Self-Assessment Grid of European Language Portfolio)

### Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
University graduation	2006	National Technical University of Athens	M. Eng. Diploma in Rural and Surveying Engineering, with honors (9.17/10). Diploma Thesis: Automatic Camera Calibration of Digital Cameras based on Regular Planar Patterns. Supervisor: Prof. George Karras
University graduation	2009	University of Rome “La Sapienza”	B. Eng. in Electronics Engineering, with honors (110/110 cum laude). Bachelor Thesis: A Randomized Approach for the Path Planning of Controlled UAVs. Supervisor: Prof. Giuseppe Oriolo
University graduation	2012	University of Rome “La Sapienza”	M. Sc. Eng. in Artificial Intelligence and Robotics, with honours (110/110 cum laude). Master Thesis: MoCap based Action Recognition. Supervisor: Prof. Fiora Pirri
Ph.D.	2016	University of Rome “La Sapienza”	Ph.D. in Engineering in Computer Science, with honors. Ph.D. Thesis: Inverse Problem Theory in Shape and Action Modeling. Advisor: Prof. Fiora Pirri

### Part III – Appointments

#### IIIA – Academic Appointments

Start	End	Institution	Position
11/2015	01/2017	Department of Computer, Control and Management Engineering Antonio Ruberti, University of Rome “La Sapienza”	Graduate Research Assistant
02/2017	01/2020	Department of Computer, Control and Management Engineering Antonio Ruberti, University of Rome “La Sapienza”	Fixed-term Researcher (Ricercatore a tempo determinato di tipo A)
02/2020	now	Remote Sensing Lab, School of Rural and Surveying Engineering, National Technical University of Athens	Research Fellow

#### IIIB – Other Appointments

Start	End	Institution	Position
03/2013	02/2014	Department of Computer, Control and Management Engineering Antonio Ruberti, University of Rome “La Sapienza”	Collaborator
08/2014	07/2015	Department of Computer, Control and Management Engineering Antonio Ruberti, University of Rome “La Sapienza”	Collaborator
10/2015	10/2015	Department of Computer, Control and Management Engineering Antonio Ruberti, University of Rome “La Sapienza”	Collaborator

### Part IV – Teaching experience

Year	Institution	Lecture/Course
2013-2016	University of Rome “La Sapienza”	Vision and Perception (6 ECTS) (Teaching Assistant), M. Sc. Eng. in Artificial Intelligence and Robotics
2017	University of Rome “La Sapienza”	Laboratorio di Programmazione (3 ECTS) – Laurea in Ingegneria delle Comunicazioni
2017	University of Rome “La Sapienza”	Machine Learning (3 ECTS), M. Sc. Eng. in Artificial Intelligence and Robotics
2018	University of Rome “La Sapienza”	Fondamenti di Informatica (6 ECTS), Laurea in Ingegneria Gestionale

2019	University of Rome “La Sapienza”	Fondamenti di Informatica (6 ECTS), Laurea in Ingegneria Gestionale
2019	University of Rome “La Sapienza”	Machine Learning (3 ECTS), M. Sc. Eng. in Artificial Intelligence and Robotics

### Other teaching activities

Year	Organizer	Lecture/Course
2018	Advanced School in Artificial Intelligence – CNR-ISTC	Introduction to Machine Learning (3 seminars – 12 hours)
2020	World UAV Federation – Hellenic Chapter	3D modeling using UAVs (2-day seminar – 16 hours)

### Student supervision

Year	Title	Student	Degree
2019	Towards An Understanding Of Human Activities: From The Skeleton to the Space	Marta Sanzafi	PhD in Computer Science
2021	Implementation and evaluation of production machine learning systems with application in the semantic segmentation of geospatial data	Chrysa Hriopoulou	MSc in Data Science & Machine Learning
2020	Cloud removal from Sentinel-2 images using generative adversarial networks	Foteini Siouka	MSc in Data Science & Machine Learning
2020	Generation of Synthetic Referring Expressions for Object Segmentation	Ioannis Kazakos	MSc in Data Science & Machine Learning
2020	VPPNet: vehicle six degrees of freedom estimation from RGB images	Simone Pelosi	MSE in Computer Science
2017	Action Primitives Modelling from 3D Pose Data and Videos	Simone Grazioso	MSE in Artificial Intelligence and Robotics
2015	Enhancing the Bundle Adjustment for the Gaze Machine Model	Mahmoud Qod-seya	MSE in Artificial Intelligence and Robotics
2014	Activity Understanding from 3D Data	Fabrizio Natola	MSE in Artificial Intelligence and Robotics
2022	Cloud removal from Sentinel-2 images using transformer networks (in progress)	Dionysios Christopoulous	BEng in Rural and Surveying Engineering
2020	Semantic segmentation of high-resolution aerial remote sensing data using convolutional neural networks	Katerina Kostarelou	BEng in Rural and Surveying Engineering
2014	Human Motion Capture and Kinematic Analysis	Giorgio Tartaglia	BEng in Computer Science

### Part V – Society memberships, Awards and Honours

Year	Title
2009-present	Member of the Technical Chamber of Greece (TEE)

2014-2016	IEEE Student Member
2016-present	Computer Vision Foundation Member
2001-2006	Recipient of the yearly academic achievement scholarships awarded from the state scholarships foundation of Greece (IKY)
2001-2006	Recipient of the yearly academic achievement scholarships awarded from the Technical Chamber of Greece (TEE)
2001-2006	“Thomaidion” award – Highest average grade of the respective academic years for the course of Rural and Surveying Engineering
2002	“Chatzopoulou” award – Highest grade in the course of Descriptive Geometry for the course of Rural and Surveying Engineering
2003	“Papakyriakopoulou” award – Highest average grade in the courses of mathematics in the first two academic years for the course of Rural and Surveying Engineering
2006	“Chrisovergion” award for the Diploma Degree with the highest grade in Rural and Survey Engineering for the academic year
2006	“Thomaidion” award for the best Diploma Thesis at the National Technical University of Athens for the academic year 2005-2006
2011	Recipient of the award offered by Accenture for one student enrolled at the 2nd year of the M. Sc. Eng. in Artificial Intelligence and Robotics, University of Rome “La Sapienza”
2012-2015	Scholarship for the Ph.D. course in Engineering in Computer Science offered by the Italian Ministry of Education, University and Research, highest ranked applicant
2013	NSA funding for attending Graduate Summer School in Computer Vision 2013, organized by the Institute of Pure and Applied Mathematics, UCLA, Los Angeles, CA
2015	DCPRAM 2015 Best Ph.D. student award for the work: F. Natola, V. Ntouskos and F. Pirri, "Collaborative Activities Understanding from 3D Data"
2019	IJCAI-2019 Distinguished program committee member
2020	National Scholarship Foundation of Greece (IKY), 2-year Research Fellowship
2021	ICLR 2021 Outstanding reviewer

## Part VI - Funding Information [grants as PI-principal investigators or I-investigator]

Year	Title	Program	Grant value
2013	[I] - Cognitive Systems and Robotics working together to assess real-life urban disaster sites (NIFTi)	EU FP7 RIA (Grant nr. 247870)	729K Euros
2014-2018	[I] - Robotics, Cognitive Systems and Smart Spaces, Symbiotic Interaction (TRADR)	EU FP7 RIA (Grant nr. 609763)	754K Euros
2015-2020	[I] - SecondHands: A Robot Assistant For Industrial Maintenance Tasks	EU H2020 RIA (Grant nr. 643950)	994K Euros
2017-2020	[PI] - A virtual time machine for archaeological excavations	Sapienza Medium Scale Research Projects – Protocol nr: RM11715C8258D198	9K Euros

2021-	[I] - Radioactivity Monitoring in Ocean Ecosystems (RAMONES)	H2020 FET Proactive (Grant nr. 101017808)	660K Euros
2021-	[I] - Intelligent Total Body Scanner for Early Detection of Melanoma (iToBoS)	H2020 RIA (Grant nr. 965221)	440K Euros
2022-	[PI] - Intelligent Scene Sensing and Analysis in Underwater Environments (iSEAu)	H2020 MSCA-IF (ID: 101030367)	165K Euros

## Part VII – Research Activities

**Topics:** Deep Learning, Inverse Problems, Action Recognition, 3D Vision, Variational methods, Regularization theory, Convex Optimization, Non-parametric Bayesian methods, Computational Attention.

**Research Statement and Vision:** The main goal of my research is to gain an in-depth understanding of the mechanisms of visual perception for the analysis and the generation of images through the synergy of theory-led and data-driven models. The aim is to develop new models to meet the great challenges encountered in the scientific fields of computational vision and machine learning by properly combining these two paradigms of mathematical modeling. Despite the undeniable success of data-driven models in a wide range of applications where large volumes of labeled data are available, theory-led models continue to have specific advantages in terms of their ability to explain and interpret results, in combination with their efficiency and reduced requirements of annotated data.

An important part my research work is motivated by challenges related to robotic perception. Being a member of a robotics laboratory and by participating in multiple EU Research and Innovation Robotics projects, I have gained valuable experience on designing and implementing solutions based on computer vision and machine learning methods on real robotics systems. Currently, I am working on developing methods for processing, correlating and merging multi-temporal data to extract 4D information from images and videos, and in particular in challenging environments such as those encountered in underwater and space applications.

### Research Focus

**Deep Learning:** I have explored different architectures of Deep Convolutional Neural Networks (DCNN) for human activity recognition, object detection and semantic segmentation, image inpainting. Regarding activity recognition, considering that the scene context very often provides crucial information for interpreting human activities in videos, we have proposed a method based on deep learning which combines state-of-the-art results in object detection and human pose estimation for boosting human activity recognition accuracy in videos. Regarding object detection and semantic segmentation, DCNN architectures were exploited which produce features suitable for recognizing semantically meaningful regions on objects belonging to various categories. Regards image inpainting, we have employed generative models based on deep architectures (generative adversarial networks and vision transformers) for spatio-temporal inpainting for object removal from images sequences and videos.

**Inverse Problems:** Large part of my research concerns inverse problem theory and the mathematical tools employed for the solution of ill-posed problems. More specifically, I have focused on regularization theory and on non-parametric Bayesian methods, as described in detail in the following paragraphs. In particular, my contributions regarded inverse problems emerging from applications in robotic and computer vision, which include the 3D modelling of articulated objects from images downloaded from the web, the 3D modelling of the surface of non-Lambertian objects from a single image, the fusion of depth images and the dense 3D reconstruction of natural scenes, as

well as the reconstruction of the 3D human pose from a single image and the recognition of human actions from 3D data. I am currently focusing on unifying aspects of inverse problem theory and learning theory, particularly for examining the inductive bias of deep learning models.

**Action Recognition:** I have worked extensively on the problem of human action recognition from 3D data. In this context, I have proposed different methods for the classification of basic and complex actions based on latent variable models and on non-parametric Bayesian methods. Specifically, I have contributed in the development of action recognition methods which allow for real-time and near real-time inference from limited training data and a small number of frames, while not requiring any temporal continuity. I have also worked on the problem of the recognition of collaborative actions performed by two or more subjects.

**3D Vision:** 3D reconstruction and modelling have been central topics in my research. A large part of my contributions regards sparse and dense 3D modelling not only of static scenes but also of articulated objects, as for example animals. More in detail, I have contributed in the development of a complete self-localization and 3D reconstruction pipeline for a head-mounted gaze estimation device. Moreover, the confidence driven regularization method I have proposed has been used for the variational fusion of depth images, which is a crucial part of the dense 3D reconstruction pipeline, giving excellent results. Additionally, I have contributed in developing methods which combine regularization theory and non-parametric Bayes in order to model complex objects as animals and non-Lambertian surfaces.

**Variational methods and Regularization theory:** I have considered variational methods based on regularization theory and in particular Total Variation (TV) and Total Generalized Variation (TGV) based approaches for the solution of various problems in finite and infinite dimensional spaces. My main contribution in this field regards the introduction of a confidence driven regularization method which allows for the automatic estimation of the confidence values based on the available data. This regularization method has as a result spatially adaptive regularization effects which depend on the spatial coherence of the data. Additional contributions include the dense 2.5D registration on Lie manifolds and the joint regularization of depth and normal fields for photo-consistency based 3D surface smoothing.

**Convex Optimization:** I have extensively used convex optimization theory and methods for the solution of non-smooth and non-linear optimization problems as the ones arising from TV and TGV regularization methods. More in detail, I have contributed in the extension of Primal-Dual Hybrid Gradient (PDHG) methods for spatially adaptive regularization weights as well as for biconvex functionals. Additionally, I have provided extensions of standard biconvex and non-convex optimization methods for the case of non-smooth functionals with spatially adaptive regularization weights. Particular focus has been given in introducing methods which can be massively parallelized in order to allow for GPGPU implementation.

**Non-parametric Bayesian methods:** I have used non-parametric Bayesian methods for unsupervised learning tasks. I have focused particularly on Dirichlet Process Mixture models (DPM) which can effectively capture the relations and the underlying structure of the features considered while at the same time they allow for real-time inference. By employing hierarchical and nested DPM models I have proposed methods for dealing with challenging inverse problems as the recognition of human actions from 3D pose data, the estimation of the 3D pose of a human subject from a single image and the inference of the 3D shape of non-Lambertian objects.

**Computational Attention:** Regarding Computational Attention I have worked on the problem of saliency prediction based on the coherence theory of attention and on the acquisition of 3D gaze

data from human subjects in different scenarios. In this context, I have contributed in the development of the hardware and software modules of a 3D gaze estimation device with particular focus on developing novel gaze calibration as well as self-localization and dense 3D reconstruction methods.

## Part VIII – Academic Activities

Type	Date	Details
Associate Editor	2020	IEEE Robotics and Automation Society for ICRA 2020
Senior Program Chair	2021-2022	International Joint Conference on Artificial Intelligence – IJCAI
Top-tier Conference Reviewer	2021	International Conference on Machine Learning - ICML
Top-tier Conference Reviewer	2021-2022	International Conference on Learning Representations - ICLR
Top-tier Conference Reviewer	2020-2021	Conference on Neural Information Processing Systems - NeurIPS
Top-tier Conference Reviewer	2019-2022	IEEE/CVF Int'l Conf. on Computer Vision and Pattern Recognition – CVPR
Top-tier Conference Reviewer	2019-2021	IEEE/CVF Int'l Conf. on Computer Vision – ICCV
Top-tier Conference Reviewer	2020	European Conference on Computer Vision – ECCV
Top-tier Conference Program Committee member	2018-2022	International Joint Conference on Artificial Intelligence – IJCAI
Top-tier Conference Program Committee member	2019-2022	AAAI Conference on Artificial Intelligence
Conference Reviewer	2021	Winter Conference on Applications of Computer Vision – WACV
Conference Program Committee member	2018, 2020	European Conference on Artificial Intelligence – ECAI
Workshop organizer	Oct 2017	Image-based modeling of Articulated and Deformable Objects (IMADO), ICCV 2017
Workshop organizer	Nov 2019	Innovation Workshop Rome-Guangdong, Sapienza University of Rome
Workshop organizer	Apr 2021	Blue Research and Innovation Days
Mentoring	2020	Copernicus Hackathon Athens
Mentoring	2021	Blue Research and Innovation Days Hackathon
Invited talk	April 2016	Perceiving Systems, Max Planck Institute for Intelligent Systems, Tübingen
Invited talk	April 2016	School of Rural and Surveying Engineering, NTUA, Athens
Invited talk	May 2017	Post-graduate program in “Geospatial Technologies”, TEI Athens, Athens
Invited talk	Jan. 2018	Dep. of Electronic Engineering, Chalmers University of Technology, Gothenburg, Sweden

Invited talk	Apr. 2019	Modern UAV Applications, UniWA, Greece
Invited talk	Sep. 2019	Department of Control and Computer Engineering, Polytechnic University of Turin, Turin
Invited talk	Sep. 2019	Adaptive Vision and Human Robot Collaboration Tutorial, 12 <sup>th</sup> International Conference on Computer Vision Systems (ICVS 2019), Thessaloniki, Greece
Invited talk	Jan. 2021	UAV as intelligent robot systems, Drone 3S Project conference (online)
Invited talk	Jan. 2021	Drone 3D Pro Online Congress
Journal reviewer	2014-present	IET Image Processing
Journal reviewer	2015	Computer Vision and Image Understanding
Journal reviewer	2020-	IEEE Transactions on Artificial Intelligence
Journal reviewer	2015-present	IEEE Robotics and Automation Letters
Journal reviewer	2016	International Journal of Robotics and Automation
Journal reviewer	2017-present	MDPI Sensors
Journal reviewer	2017-present	MDPI Applied Sciences
Journal reviewer	2020-present	MDPI Remote Sensing
Journal reviewer	2020-present	IEEE Access
Session chair	2013	International Conference on Pattern Recognition Applications and Methods
Session chair	2015	International Conference on Computer Graphics Theory and Applications
Summer school	2013	International Computer Vision Summer School 2013, Calabria, Italy
Summer school	2013	Graduate Summer School in Computer Vision 2013, organized by the Institute of Pure and Applied Mathematics, UCLA, Los Angeles, CA

## Part IX – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	28	Google Scholar	2007	2021
Papers [international]	19	Elsevier Scopus	2008	2021

	Elsevier Scopus	Google Scholar
Total Impact factor	6.645	
Average Impact factor	2.215	
Total Citations	136	291
Average Citations per Product	7.16	10.39
Hirsch (H) index	7	10

## Part X – Selected Publication

List of the publications selected for the evaluation.

Note: citations are reported with respect to the data of the Elsevier Scopus database (data from Google Scholar are given in parenthesis).

- B. Franchetti, **V. Ntouskos**, P. Giuliani, T. Heinman, L. Barnes, F. Pirri, 2019: Vision based modeling of plants phenotyping in vertical farming under artificial lighting, *Sensors* 19 (20), MDPI, p. 4378. ISSN: 1424-8220, DOI: [10.3390/s19204378](https://doi.org/10.3390/s19204378)  
IF 3.031, 2 (4) citations
- M. Sanzari, **V. Ntouskos**, F. Pirri, 2019: “Discovery and recognition of motion primitives in human activities,” *PLOS One* 14(4): e0214499. ISSN: 1932-6203, DOI: [10.1371/journal.pone.0214499](https://doi.org/10.1371/journal.pone.0214499)  
IF 2.776, 8 (14) citations
- **V. Ntouskos**, F. Pirri, M. Pizzoli, A. Sinha, and B. Cafaro, 2013: Saliency prediction in the coherence theory of attention. *Biologically Inspired Cognitive Architectures*, **5**, 10-28. ISSN: 2212-683X, DOI: [10.1016/j.bica.2013.05.012](https://doi.org/10.1016/j.bica.2013.05.012)  
IF 0.838, 9 (13) citations
- E. Alati, L. Mauro, **V. Ntouskos**, F. Pirri, 2019: Help by Predicting what to Do. *IEEE Int’l Conf. on Image Processing (ICIP)*, Taipei, Taiwan. ISSN: 1522-4880, DOI: [10.1109/ICIP.2019.8803155](https://doi.org/10.1109/ICIP.2019.8803155)  
3 (5) citations
- F. Puja, S. Grazioso, L. Mauro, **V. Ntouskos**, M. Sanzari, L. Freda and F. Pirri, 2018: Visual search and recognition for robot task execution and monitoring. *Proceedings of Applications of Intelligent Systems (APPIS)*. ISSN: 0922-6389, DOI: [10.3233/978-1-61499-929-4-94](https://doi.org/10.3233/978-1-61499-929-4-94)  
3 (5) citations
- I. Kruijff-Korbayová, L. Freda, M. Gianni, **V. Ntouskos**, V. Hlaváč, V. Kubelka, E. Zimmermann, H. Surmann, K. Dulic, W. Rottner, and E. Gissi, 2016: Deployment of ground and aerial robots in earthquake-struck Amatrice in Italy (brief report). *Proc. International Symposium on Safety, Security and Rescue Robotics (SSRR)*. Lausanne, Switzerland. DOI: [10.1109/SSRR.2016.7784314](https://doi.org/10.1109/SSRR.2016.7784314)  
16 (22) citations
- M. Sanzari, **V. Ntouskos**, and F. Pirri, 2016: Bayesian image based 3D pose estimation. *Proc. European Conference on Computer Vision (ECCV)*. Amsterdam, Netherlands. ISSN: 0302-9743. DOI: [10.1007/978-3-319-46484-8\\_34](https://doi.org/10.1007/978-3-319-46484-8_34)  
40 (76) citations
- F. Natola, **V. Ntouskos**, F. Pirri, and M. Sanzari, 2016: Single Image Object Modeling Based on BRDF and r-Surfaces Learning. *Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. Las Vegas, NV, IEEE, 4414-4423. ISSN: 1063-6919, DOI: [10.1109/CVPR.2016.478](https://doi.org/10.1109/CVPR.2016.478)  
1 (3) citations

- **V. Ntouskos**, M. Sanzari, B. Cafaro, F. Nardi, F. Natola, F. Pirri, and M. Ruiz 2015: Component-wise modeling of articulated objects. *Proc. IEEE International Conference on Computer Vision (ICCV)*. Santiago, Chile, IEEE, 2327-2335. ISSN: 1550-5499, DOI: [10.1109/ICCV.2015.268](https://doi.org/10.1109/ICCV.2015.268)  
9 (15) citations
- F. Natola, **V. Ntouskos**, M. Sanzari, and F. Pirri, 2015: Bayesian non-parametric inference for manifold based MoCap representation. *Proc. IEEE International Conference on Computer Vision (ICCV)*. Santiago, Chile, IEEE, 4606-4614. ISSN: 1550-5499, DOI: [10.1109/ICCV.2015.523](https://doi.org/10.1109/ICCV.2015.523)  
4 (4) citations
- **V. Ntouskos**, P. Papadakis, and F. Pirri, 2014: Probabilistic Discriminative Dimensionality Reduction for Pose-Based Action Recognition. *Pattern Recognition Applications and Methods*, A. Fred, and M. De Marsico. Springer International Publishing, 137-152. ISSN: 1615-3871, DOI: [10.1007/978-3-319-12610-4\\_9](https://doi.org/10.1007/978-3-319-12610-4_9)  
3 (3) citations
- **V. Ntouskos**, P. Papadakis, and F. Pirri, 2012: A comprehensive analysis of human motion capture data for action recognition. *Proc. International Conference on Computer Vision Theory and Applications (VISAPP 2012)*. Rome, Italy, INSTICC, 647-652. ISBN: 9789898565037, DOI: [10.5220/0003868806470652](https://doi.org/10.5220/0003868806470652)  
10 (11) citations

## Part XI – Complete List of Publications

Note: citations are reported with respect to the data of the Elsevier Scopus database (data from Google Scholar are given in parenthesis).

### Journal Articles

- [j4] P. Mertikas, **V. Ntouskos**, A. Mallios, K. Karantzalos, (under review): Seabed Classification from Multispectral Multibeam Data, *IEEE Journal of Oceanic Engineering*
- [j3] B. Franchetti, **V. Ntouskos**, P. Giuffani, T. Heinman, L. Barnes, F. Pirri, 2019: Vision based modeling of plants phenotyping in vertical farming under artificial lighting, *Sensors* 19 (20), MDPI, p. 4378. ISSN: 1424-8220, DOI: [10.3390/s19204378](https://doi.org/10.3390/s19204378)  
IF 3.031, 2 (4) citations
- [j2] M. Sanzari, **V. Ntouskos**, F. Pirri, 2019: “Discovery and recognition of motion primitives in human activities,” *PLOS One* 14(4): e0214499. ISSN: 1932-6203, DOI: [10.1371/journal.pone.0214499](https://doi.org/10.1371/journal.pone.0214499)  
IF 2.776, 8 (14) citations
- [j1] **V. Ntouskos**, F. Pirri, M. Pizzoli, A. Sinha, and B. Cafaro, 2013: Saliency prediction in the coherence theory of attention. *Biologically Inspired Cognitive Architectures*, 5, 10-28. ISSN: 2212-683X, DOI: [10.1016/j.bica.2013.05.012](https://doi.org/10.1016/j.bica.2013.05.012)  
IF 0.838, 9 (13) citations

### Conference Proceedings (peer-reviewed)

[c20] V. Ntouskos, C. Iliopolou, K. Karantzas, 2021: Production Machine Learning Frameworks for Geospatial Big Data. *IEEE Int'l Conf. on Big Data (BigData)*, Online (to appear)

[c19] E. Alati, L. Mauro, **V. Ntouskos**, F. Pirri, 2019: Help by Predicting what to Do. *IEEE Int'l Conf. on Image Processing (ICIP)*, Taipei, Taiwan. ISSN: 1522-4880, DOI: [10.1109/ICIP.2019.8803155](https://doi.org/10.1109/ICIP.2019.8803155)

3 (5) citations

[c18] E. Alati, L. Mauro, **V. Ntouskos**, F. Pirri, 2019: Anticipating next goal for robot plan prediction. *Intelligent Systems Conference (IntelliSys)*, London, UK. ISSN: 2194-5357, DOI: [10.1007/978-3-030-29516-5\\_60](https://doi.org/10.1007/978-3-030-29516-5_60)

1 (4) citations

[c17] F. Pirri, L. Mauro, E. Alati, M. Sanzari, **V. Ntouskos**, G. Massimiani, 2019: Deep execution monitor for robot assistive tasks. *Proceedings of the European Conference on Computer Vision Workshops (ECCVW)*, Munich, Germany. ISSN: 0302-9743, DOI: [10.1007/978-3-030-11024-6\\_11](https://doi.org/10.1007/978-3-030-11024-6_11)

4 (5) citations

[c16] F. Puja, S. Grazioso, L. Mauro, **V. Ntouskos**, M. Sanzari, L. Freda and F. Pirri, 2018: Visual search and recognition for robot task execution and monitoring. *Proceedings of Applications of Intelligent Systems (APPIS)*. ISSN: 0922-6389, DOI: [10.3233/978-1-61499-929-4-94](https://doi.org/10.3233/978-1-61499-929-4-94)

3 (5) citations

[c15] I. Kruijff-Korbayová, L. Freda, M. Gianni, **V. Ntouskos**, V. Hlaváč, V. Kubelka, E. Zimmermann, H. Surmann, K. Dulic, W. Rottner, and E. Grissi, 2016: Deployment of ground and aerial robots in earthquake-struck Amatrice in Italy (brief report). *Proc. International Symposium on Safety, Security and Rescue Robotics (SSRR)*. Lausanne, Switzerland. DOI: [10.1109/SSRR.2016.7784314](https://doi.org/10.1109/SSRR.2016.7784314)

16 (22) citations

[c14] M. Sanzari, **V. Ntouskos**, and F. Pirri, 2016: Bayesian image based 3D pose estimation. *Proc. European Conference on Computer Vision (ECCV)*. Amsterdam, Netherlands. ISSN: 0302-9743, DOI: [10.1007/978-3-319-46484-8\\_34](https://doi.org/10.1007/978-3-319-46484-8_34)

40 (76) citations

[c13] M. Qodseya, M. Sanzari, **V. Ntouskos**, and F. Pirri, 2016: A3D: A device for studying gaze in 3D. *Proc. European Conference on Computer Vision Workshops (ECCVW)*. Amsterdam, Netherlands. ISSN: 0302-9743, DOI: [10.1007/978-3-319-46604-0\\_41](https://doi.org/10.1007/978-3-319-46604-0_41)

6 (7) citations

[c12] F. Natola, **V. Ntouskos**, F. Pirri, and M. Sanzari, 2016: Single Image Object Modeling Based on BRDF and r-Surfaces Learning. *Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. Las Vegas, NV, IEEE, 4414-4423. ISSN: 1063-6919, DOI: [10.1109/CVPR.2016.478](https://doi.org/10.1109/CVPR.2016.478)

1 (3) citations

[c11] **V. Ntouskos**, M. Sanzari, B. Cafaro, F. Nardi, F. Natola, F. Pirri, and M. Ruiz 2015: Component-wise modeling of articulated objects. *Proc. IEEE International Conference on Computer Vision (ICCV)*. Santiago, Chile, IEEE, 2327-2335. ISSN: 1550-5499, DOI: [10.1109/ICCV.2015.268](https://doi.org/10.1109/ICCV.2015.268)

9 (15) citations

- [c10] F. Natola, **V. Ntouskos**, M. Sanzari, and F. Pirri, 2015: Bayesian non-parametric inference for manifold based MoCap representation. *Proc. IEEE International Conference on Computer Vision (ICCV)*. Santiago, Chile, IEEE, 4606-4614. ISSN: 1550-5499, DOI: [10.1109/ICCV.2015.523](https://doi.org/10.1109/ICCV.2015.523)  
4 (4) citations
- [c9] B. Cafaro, I. Azimi, **V. Ntouskos**, F. Pirri, and M. Ruiz, 2015: Point Cloud Structural Parts Extraction based on Segmentation Energy Minimization. *Proc. 10th International Conference on Computer Graphics Theory and Applications (GRAPP 2015)*. Berlin, Germany, INSTICC, 150-157. ISBN: 9789897580871, DOI: [10.5220/0005309301500157](https://doi.org/10.5220/0005309301500157)
- [c8] M. Sanzari, F. Natola, F. Nardi, **V. Ntouskos**, M. Qodseya, and F. Pirri, 2015: Rigid tool affordance matching points of regard. *Proc. IROS 2015 Workshop "Learning object affordances: a fundamental step to allow prediction, planning and tool use?"*. Hamburg, Germany.
- [c7] F. Natola, **V. Ntouskos**, and F. Pirri, 2015: Collaborative Activities Understanding from 3D Data. *Proc. Doctoral Consortium on Pattern Recognition Applications and Methods*. Lisbon, Portugal, INSTICC, 19-23. (Best student paper award)  
0 (1) citations
- [c6] G. De Giacomo, **V. Ntouskos**, F. Patrizi, S. Vassos, and D. Aversa, 2015: Service Composition with PDDL Representations and Visualization over Videogame Engines. *Proc. IEEE 8th International Conference on Service-Oriented Computing and Applications (SOCA 2015)*. Rome, Italy, IEEE. ISBN: 9781467394697, DOI: [10.1109/SOCA.2015.46](https://doi.org/10.1109/SOCA.2015.46)
- [c5] **V. Ntouskos**, P. Papadakis, and F. Pirri, 2014: Probabilistic Discriminative Dimensionality Reduction for Pose-Based Action Recognition. *Pattern Recognition Applications and Methods*, A. Fred, and M. De Marsico. Springer International Publishing, 137-152. ISSN: 1615-3871, DOI: [10.1007/978-3-319-12610-4\\_9](https://doi.org/10.1007/978-3-319-12610-4_9)  
3 (3) citations
- [c4] G. De Giacomo, **V. Ntouskos**, F. Patrizi, S. Vassos, and D. Aversa, 2014: Agent Behavior Composition in Virtual Environments Realized Using Game Engines. *Proc. 2014 Workshop on AI Problems and Approaches for Intelligent Environments*. Prague, Czech Republic.
- [c3] **V. Ntouskos**, P. Papadakis, and F. Pirri, 2013: Discriminative sequence back-constrained GP-LVM for MOCAP based action recognition. *Proc. 2nd International Conference on Pattern Recognition Applications and Methods (ICPRAM)*. Barcelona, Spain, INSTICC, 87-96. ISBN: 9789898565419, DOI: [10.5220/0004268600870096](https://doi.org/10.5220/0004268600870096)  
2 (4) citation
- [c2] E. Potapova, **V. Ntouskos**, A. Weiss, M. Zillich, M. Vincze, and F. Pirri, 2013: A Pilot Study on Eye-tracking in 3D Search Tasks. *Proc. 1st International Workshop on Solutions for Automatic Gaze Data Analysis (SAGA 2013)*. Bielefeld, Germany. DOI: [10.2390/biecoll-saga2013\\_1](https://doi.org/10.2390/biecoll-saga2013_1)
- [c1] **V. Ntouskos**, P. Papadakis, and F. Pirri, 2012: A comprehensive analysis of human motion capture data for action recognition. *Proc. International Conference on Computer Vision Theory and Applications (VISAPP 2012)*. Rome, Italy, INSTICC, 647-652. ISBN: 9789898565037, DOI: [10.5220/0003868806470652](https://doi.org/10.5220/0003868806470652)  
10 (11) citations

[c20] **V. Douskos**, L. Grammatikopoulos, I. Kalisperakis, G. Karras, and E. Petsa, 2009: FAUCCAL: An open source toolbox for fully automatic camera calibration. *Proc. XXII CIPA Symposium on Digital Documentation, Interpretation & Presentation of Cultural Heritage*. Kyoto, Japan.

(23) citations

[c21] **V. Douskos**, I. Kalisperakis, G. Karras, and E. Petsa, 2008: Fully automatic camera calibration using regular planar patterns. *ISPRS Archives*, **37**, 21-26. ISSN: 1682-1750.

15 (29) citations

[c22] **V. Douskos**, I. Kalisperakis, and G. Karras, 2007: Automatic calibration of digital cameras using planar chess-board patterns. *Proc. 8th Conference on Optical 3-D Measurement Techniques*. Zurich, Switzerland, 9-12.

(26) citations

### Preprints

[p1] F. Pirri, L. Mauro, E. Alati, V. Ntouskos, M. Izadpanahkakhk, E. Omrani, 2019: Anticipation and next action forecasting in video: an end-to-end model with memory. *Preprint*, *arXiv*: 1901.03728

(6) citations

[p2] F. Puja, S. Grazioso, A. Tammara, **V. Ntouskos**, M. Sanzari, and F. Pirri, 2017: Vision-based deep execution monitoring. *Preprint*, *arXiv*: 1709.10507

(1) citations

[p3] **V. Ntouskos**, and F. Pirri, 2016: Confidence Driven TGV Fusion. *Preprint*, *arXiv*: 1603.09302

(10) citations

I authorize the use of my personal data in compliance with Legislative Decree 196/03.

Tutto quanto in esso dichiarato corrisponde a verità ai sensi degli articoli 46 e 47 del D.P.R. 445/2000.

# Curriculum Vitae di **Andrea Ribichini**

---

## Dati Anagrafici

Nome: Andrea

Cognome: Ribichini

## Titoli di Studio Conseguiti

29/02/2008 – **Titolo di Dottore di Ricerca in Ingegneria Informatica**  
conseguito presso l'Università degli Studi di Roma "La Sapienza".

04/04/2005 – **Abilitazione all'Esercizio della Professione di Ingegnere**  
conseguita presso l'Università degli Studi di Roma "La Sapienza".

30/10/2002 – **Laurea Quinquennale in Ingegneria Elettronica**  
conseguita presso l'Università degli Studi di Roma "La Sapienza".

21/07/1992 – **Maturità Classica**  
conseguita presso il Liceo Ginnasio Statale "Giulio Cesare" di Roma.

## Pubblicazioni

### in Riviste Internazionali:

- C. Demetrescu, A. Ribichini, M. Schaerf "**Are Italian research assessment exercises size-biased?**", pubblicato su *Scientometrics* 125 (2020), pagg. 533-549, Springer.

- C. Demetrescu, I. Finocchi, A. Ribichini, M. Schaerf "**On bibliometrics in academic promotions: a case study in computer science and engineering in Italy**", pubblicato su *Scientometrics* 124 (2020), pagg. 2207-2228, Springer.

- G. Ausiello, P. G. Franciosa, I. Lari, A. Ribichini "**Max flow vitality in general and st-planar graphs**", pubblicato su *Networks*, volume 74, numero 1 (2019), pagg. 70-78, Wiley.

- C. Demetrescu, F. Lupia, A. Mendicelli, A. Ribichini, F. Scarcello, M. Schaerf "**On the Shapley value and its application to the Italian VQR research assessment exercise**", pubblicato su *Journal of Informetrics (JOI)*, volume 13, numero 1 (Febbraio 2019), pagg. 87-104, Elsevier.

- C. Demetrescu, A. Ribichini, M. Schaerf "**Accuracy of Author Names in Bibliographic Data Sources: An Italian Case Study**", pubblicato su *Scientometrics*, volume 117, numero 3 (Dicembre 2018), pagg. 1777-1791, Springer.

- F. Lupia, A. Mendicelli, A. Ribichini, F. Scarcello, M. Schaerf "**Computing the Shapley value in allocation problems: approximations and bounds, with an application to the Italian VQR research assessment program**", pubblicato su *Journal of Experimental & Theoretical Artificial Intelligence (JETAI)*, volume 30, numero 4 (2018), pagg. 505-524, Taylor & Francis.

- G. Ausiello, P. G. Franciosa, G. F. Italiano, A. Ribichini "**On Resilient Graph Spanners**", pubblicato su *Algorithmica*, volume 74, numero 4 (Aprile 2016), pagg. 1363-1385, Springer.

- C. Demetrescu, I. Finocchi, A. Ribichini "**Reactive Imperative Programming with Dataflow Constraints**", pubblicato su *ACM Transactions on Programming Languages and Systems (TOPLAS)*, volume 37, numero 1 (Novembre 2014), articolo n. 3, ACM New York,

NY, USA.

- G. Ausiello, P. G. Franciosa, G. F. Italiano, A. Ribichini **“Computing Graph Spanners in Small Memory: Fault-Tolerance and Streaming”**, pubblicato su *Discrete Mathematics, Algorithms and Applications (DMAA)*, volume 2, numero 4 (2010), pagg. 591-605, World Scientific Publishing Company.

- C. Demetrescu, B. Escoffier, G. Moruz, A. Ribichini **“Adapting Parallel Algorithms to the W-Stream Model, with Applications to Graph Problems”**, pubblicato su *Theoretical Computer Science (TCS)*, volume 411, numero 44-46 (Ottobre 2010), pagg. 3994-4004, Elsevier Science Publishers Ltd. Essex, UK.

- C. Demetrescu, I. Finocchi, A. Ribichini **“Trading Off Space for Passes in Graph Streaming Problems”**, pubblicato su *ACM Transactions on Algorithms (TALG)*, volume 6, numero 1 (Dicembre 2009), pagg. 1-17, ACM New York, NY, USA.

- G. Ausiello, C. Demetrescu, P. G. Franciosa, G. F. Italiano, A. Ribichini **“Graph Spanners in the Streaming Model: an Experimental Study”**, pubblicato su *Algorithmica*, volume 55, numero 2 (Ottobre 2009), pagg. 346-374, Springer New York.

#### **in Proceeding di Conferenze Internazionali:**

- G. Ausiello, P. G. Franciosa, G. F. Italiano, A. Ribichini **“On Resilient Graph Spanners”**, in *Proceedings of the 21<sup>st</sup> Annual European Symposium on Algorithms (ESA '13)*, pagg. 85-96, 2013.

- C. Demetrescu, I. Finocchi, A. Ribichini **“Reactive Imperative Programming with Dataflow Constraints”**, in *Proceedings of the 26<sup>th</sup> ACM International Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA '11)*, pagg. 407-426, 2011. All'articolo è stato conferito un riconoscimento come *“OOPSLA Distinguished Paper”*. Questo articolo e' stato anche pubblicato in *ACM SIGPLAN Notices*, volume 46, issue 10, pagg. 407-426, 2011.

- G. Ausiello, P. G. Franciosa, G. F. Italiano, A. Ribichini **“Computing Graph Spanners in Small Memory: Fault-Tolerance and Streaming”**, in *Proceedings of the 16<sup>th</sup> Annual International Computing and Combinatorics Conference (COCOON '10)*, pagg. 160-172, 2010.

- G. Ausiello, C. Demetrescu, P. G. Franciosa, G. F. Italiano, A. Ribichini **“Small Stretch Spanners in the Streaming Model: New Algorithms and Experiments”**, in *Proceedings of the 15<sup>th</sup> Annual European Symposium on Algorithms (ESA '07)*, pagg. 605-617, 2007.

- C. Demetrescu, B. Escoffier, G. Moruz, A. Ribichini **“Adapting Parallel Algorithms to the W-Stream Model, with Applications to Graph Problems”**, in *Proceedings of the 32<sup>nd</sup> International Symposium on Mathematical Foundations of Computer Science (MFCS '07)*, pagg. 194-205, 2007.

- C. Demetrescu, I. Finocchi, A. Ribichini **“Trading Off Space for Passes in Graph Streaming Problems”**, in *Proceedings of the 17<sup>th</sup> Annual ACM-SIAM Symposium on Discrete Algorithms (SODA '06)*, pagg. 714-

723, 2006.

**in Proceeding di Workshop Internazionali:**

- F. Lupia, A. Mendicelli, A. Ribichini, F. Scarcello, M. Schaerf  
“**Computing the Shapley Value in Allocation Problems: Approximations and Bounds, with an Application to the Italian VQR Research Assessment Program**”, in CEUR Workshop Proceedings, volume 1745, 2016, pp. 27-43 (23<sup>rd</sup> RCRA International Workshop on Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion, RCRA 2016; November 2016).

**Partecipazione a Progetti di Ricerca**

Partecipazione, in qualità di *research contributor*, ai seguenti Progetti di ricerca di Rilevante Interesse Nazionale (PRIN):

- Amanda: Algorithmics for MAssive and Networked DAta, MIUR, PRIN 2012.

- AlgoDEEP: Algorithmic Challenges for Data-intensive Processing on Emerging Computing Platforms, MIUR, PRIN 2008.

- MainStream: Algorithms for Massive Information Structures and Data Streams, MIUR, PRIN 2006.

- Algo-Next: Algorithms for the Next Generation Internet and Web: Methodologies, Design and Applications, MIUR, PRIN 2004.

**Partecipazione a Conferenze in Qualità di Relatore**

Relatore presso il 32<sup>nd</sup> International Symposium on Mathematical Foundations of Computer Science (MFCS 2007), August 26 - 31, 2007, Český Krumlov, Czech Republic.

**Conoscenze Informatiche**

Sistemi operativi: Microsoft Windows, GNU Linux.

Linguaggi di programmazione: C, C++, Java, Python, PySpark, PHP, Assembly (Intel x86/x86\_64).

Software per il typesetting: LaTeX.

Database: MySQL, MongoDB.

Librerie software ed API: Posix, Qt, Spring Framework.

Ambienti di sviluppo: Eclipse, DataBricks.

**Conoscenze Linguistiche**

Ottima conoscenza della lingua inglese, parlata e scritta.

**Esperienze Lavorative**

**Occupazione attuale:**

(01/05/2021 - ): Assegno di Ricerca presso il Dipartimento di Ingegneria Informatica, Automatica e Gestionale “Antonio Ruberti” dell’Università degli Studi di Roma “La Sapienza”, per “Analisi bibliometriche in area

informatica”.

### **2020 – 2021:**

(01/03/2020 – 31/01/2021): Assegno di Ricerca presso il Dipartimento Istituto Italiano di Studi Orientali ISO dell'Università degli Studi di Roma “La Sapienza”, relativo al progetto di ricerca “Sviluppo di un sistema automatizzato di recupero da cataloghi e banche dati, disambiguazione tramite identificativi univoci e indicizzazione di descrizioni bibliografiche in scritture non latine; realizzazione di un metaopac per la ricerca e consultazione di tali dati”.

### **2019 – 2020:**

(01/08/2019 – 31/01/2020): Contratto di lavoro autonomo per “Definizione delle modalità di ingestione, pulizia ed analisi dei dati per i progetti EcoDigit/Anagrafe” presso il Dipartimento di Ingegneria Informatica, Automatica e Gestionale “Antonio Ruberti” dell'Università degli Studi di Roma “La Sapienza”.

(20/03/2019 – 05/06/2019): Ruolo tecnico (area tecnica, tecnico-scientifica ed elaborazione dati), categoria D, posizione economica D1, presso l'Università degli Studi di Roma “La Sapienza”. Dal 01/04/2019 al 05/06/2019 in servizio presso l'Area Supporto Strategico e Comunicazione.

(01/03/2019 – 19/03/2019): Assegno di Ricerca presso il Dipartimento di Ingegneria Informatica, Automatica e Gestionale “Antonio Ruberti” dell'Università degli Studi di Roma “La Sapienza”, relativo al progetto di ricerca “Architetture, tecniche e metodi per l'Anagrafe del distretto Beni Culturali Regione Lazio”.

### **2014 – 2018:**

(01/06/2014 – 31/05/2018): Assegno di ricerca presso il Dipartimento di Fisica dell'Università degli Studi di Roma “La Sapienza”, per l'Attività “Supporto VQR”. Sviluppo di software e database per l'analisi e la gestione dei dati previsti dal bando della Valutazione Qualità e Ricerca’.

### **2013:**

(01/03/2013 – 31/10/2013): Contratto di collaborazione coordinata e continuativa per “Progetto e realizzazione sistema per la visualizzazione di reti metaboliche” presso il Dipartimento di Ingegneria Informatica, Automatica e Gestionale “Antonio Ruberti” dell'Università degli Studi di Roma “La Sapienza”.

- Docente a contratto per il corso di “Fondamenti di Informatica” (6 CFU), a.a. 2012/2013, Corso di Laurea in Ingegneria Gestionale, Università degli Studi di Roma “La Sapienza”.

### **2012:**

(01/03/2012 – 30/11/2012): Contratto di collaborazione coordinata e continuativa per “Progetto e sviluppo di software per l'individuazione di proprietà strutturali in ipergrafi rappresentanti reti complesse” presso il Dipartimento di Ingegneria Informatica, Automatica e Gestionale “Antonio Ruberti” dell'Università degli Studi di Roma “La Sapienza”.

### **2011:**

(10/03/2011 – 09/11/2011): Contratto di collaborazione coordinata e continuativa per “Progetto e sviluppo di software per l'individuazione di proprietà strutturali in grafi rappresentanti reti complesse” presso il Dipartimento di Informatica e Sistemistica dell'Università degli Studi di Roma “La Sapienza”.

(10/01/2011 – 18/07/2011): Contratto di collaborazione occasionale per docenza corso IFTS “Tecnico Superiore per le Applicazioni Informatiche” (autorizzato dalla Regione Lazio), modulo “Linguaggi di Programmazione”, presso l'Istituto “G. Meschini” di Roma.

### **2010:**

(01/10/2010 – 31/12/2010): Contratto di collaborazione coordinata e continuativa per “Progetto e sviluppo di una estensione del linguaggio C per la programmazione a vincoli dataflow” presso il Dipartimento di Informatica e Sistemistica dell'Università degli Studi di Roma “La Sapienza”.

- Docente a contratto per il corso di “Fondamenti di Informatica I” (6 CFU), a.a. 2009/2010, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma “La Sapienza”.

- Docente a contratto per il corso di “Fondamenti di Informatica I” (6 CFU), a.a. 2009/2010, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma “La Sapienza” - Sede di Rieti.

- Tutoraggio per il corso di “Basi di Dati”, a.a. 2009/2010, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma “La Sapienza” - Sede di Rieti.

### **2009:**

- Docente a contratto per il corso di “Fondamenti di Informatica I” (6 CFU), a.a. 2008/2009, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma “La Sapienza”.

- Docente a contratto per il corso di “Fondamenti di Informatica I (1 modulo)” (6 CFU), a.a. 2008/2009, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma “La Sapienza” - Sede di Rieti.

- Tutoraggio per il corso di “Basi di Dati”, a.a. 2008/2009, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma “La Sapienza” - Sede di Rieti.

### **2008:**

- Docente a contratto per il corso di “Fondamenti di Informatica II” (6 CFU), a.a. 2007/2008, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma “La Sapienza” - Sede di Rieti.

(05/03/2008 – 31/05/2008): Contratto di collaborazione coordinata e continuativa per “Sviluppo e implementazione di algoritmi di data stream per problemi su grafi” presso il Dipartimento di Informatica e Sistemistica dell'Università degli Studi di Roma “La Sapienza”.

- Tutoraggio per il corso di “Fondamenti di Informatica”, a.a. 2007/2008, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma

## Curriculum Vitae di **Andrea Ribichini**

---

“La Sapienza”.

**2007:**

- Tutoraggio per il corso di “Fondamenti di Informatica”, a.a. 2006/2007, Corso di Laurea in Ingegneria Informatica, Università degli Studi di Roma “La Sapienza”.

**2003:**

(01/11/2003 – 30/11/2003): Contratto di collaborazione occasionale per “Progettazione e sviluppo del sito Web per il Dottorato di Ricerca in Ingegneria Informatica” presso il Dipartimento di Informatica e Sistemistica dell'Università degli Studi di Roma “La Sapienza”.

(30/01/2003 – 30/04/2003): Contratto di collaborazione occasionale per “Progettazione e sviluppo di una libreria grafica in ambiente Windows” presso il Dipartimento di Informatica e Sistemistica dell'Università degli Studi di Roma “La Sapienza” .

Roma, 17/11/2021

www.AlboPreparatori.it

# Davide Verzotto

## Curriculum Vitae et Studiorum

Davide Verzotto si è laureato in Ingegneria Informatica presso l'Università degli Studi di Padova (*summa cum laude*) e ha ottenuto il Dottorato di Ricerca in Ingegneria dell'Informazione presso la stessa università nel 2012. È stato Visiting Scholar presso l'University of California, Riverside; Research Fellow presso A\*STAR Genome Institute of Singapore e l'Università di Pisa, Visiting Professor presso la University of Tunis El Manar; e docente presso l'Università degli Studi di Padova e l'Università di Pisa. Ha pubblicato oltre 36 lavori, sia teorici che applicati, tra cui diversi articoli in prestigiose riviste e conferenze internazionali di Informatica e due articoli in riviste computazionali con IF >7, principalmente nei campi di **algoritmi** (su stringhe), **bioinformatica** e **biologia computazionale**, **data mining** e **machine learning**, anche in collaborazione con l'industria (e.g. Procter & Gamble).

È attualmente **Ricercatore** presso l'**Istituto di Informatica e Telematica** del **CNR** di Pisa, in collaborazione con ISBEM, nell'ambito di Algoritmi e Matematica Computazionale, gruppo di Bioinformatica (BioAlgo), ed è stato recentemente docente di Data Mining e Machine Learning presso l'Università di Pisa. Ha ottenuto due Marie Curie–ERCIM Alain Bensoussan Career Development Enhancer fellowships (ABCDE) ed è inventore di un brevetto internazionale in bioinformatica.

È co-supervisore di due dottorandi presso la University of Tunis El Manar in bioinformatica, data mining e machine learning; Coordinatore di Progetto dei programmi Erasmus+ KA107 2018–20 e 2019–21 tra l'Università di Pisa e la University of Tunis El Manar; Chair e Program Committee Chair di DEXA-BIOKDD 2021; e Topic Editor stabile della rivista Algorithms.

## Research Themes

The aim of my research is to improve science, human health and the community prosperity. To accomplish this, my main activity is the design and application of **computational methods for the analysis, comparison and classification of massive, possibly heterogeneous, data, especially in biomedicine**, including the development of efficient methods for knowledge extraction and representation of large amounts of data (scalable/compact data mining; big data analytics) and their integration in statistical and machine learning frameworks in a source-agnostic fashion.

I thus conducted and led innovative research in **Algorithms (on Strings)**, **Bioinformatics and Computational Biology**, **Data Mining and Machine Learning**, which resulted in more than 16 freely available novel computational methods and tools for sequence and time series analysis, and biomedical science.

I pioneered **alignment-free sequence analysis**, **pattern discovery** and **machine learning** approaches (including optimal cache-oblivious and integrated string kernel methods) for whole-genome and protein comparison, classification and phylogeny reconstruction, in particular with the establishment of novel **information theory**-based measures and comparative approaches that can be computed efficiently and go beyond fixed-resolution methods (e.g. using linear-sized bases of irredundant variable-length motifs).

Moreover, I pioneered the development of **integrated data mining** approaches, for instance of emerging long-range genomic information technologies (e.g. *optical genome mapping*,  $\sim$ time series), for the efficient alignment —using novel indexes for both discrete and continuous-valued data,— **statistical learning** and assembly of complex and heterogeneous biological samples, as well as for other **machine learning** applications in computational biology.

Research fields:

*(String) Algorithms & Data Structures; Bioinformatics & Computational Biology/Genomics; Combinatorics on Words, Data Indexing & Compression, Information Theory; Machine Learning & Big Data Analytics; Pattern Discovery & Scalable Data Mining.*

Specific Bioinformatics and Computational Biology topics:

*Cancer Genomics & Human Diseases; Genome Comparison & Assembly; Microbial Genomics, Metagenomics & Infectious Diseases; Phylogenomics.*

## Academic Projects and Achievements

Selected research projects as Principal Investigator or WP/Unit Leader:

- ★ 2020 – “Trans-sectoral development of post-COVID-19 biosecurity and social interactions” (Project Coordinator/Principal Investigator; *project submitted*). Funding: Horizon 2020 – MSCA RISE, 2020, proposal no. SEP-210676290 (TRAPSE). Partners: CNR (Italy; Project Coordinator), Cornell University and Weill Cornell Medicine (USA), Acibadem University and Epigenetiks A.Ş. (Turkey), Consorzio per il Trasferimento Tecnologico C2T and Find Your Doctor FYD S.r.l. (Italy), Polytechnic University of Madrid (Spain), Sorbonne University and INSERM (France), Keio University (Japan), Institut Pasteur Korea (Republic of Korea), Consector Biro d.o.o. and University of Zagreb (Croatia), Biolabtech Ltd. and NASU IMBG (Ukraine), Jagiellonian University (Poland), Abdelmalek Essaadi University (Morocco); MIT (USA). Project Coordinator and CNR Unit PI: Davide Verzotto (IIT-CNR). Duration: 3 years. Project value: EUR 1,362,000 (CNR Unit: EUR 198,000).
- ★ 2019 – “Integrated data mining and machine learning methods for biological sequence analysis and stratified genomics” (Principal Investigator). Funding: Erasmus+ key action 107 – Higher Education Student and Staff Mobility between Programme and Partner Countries – International Credit Mobility, 2019, programme no. 2019-1-IT02-KA107-061955. Partners: University of Pisa (Italy; Programme Coordinator), University of Tunis El Manar (Tunisia). Programme Manager: Riccardo Grasso (University of Pisa). Project Coordinator/principal investigator: Davide Verzotto (University of Pisa). Duration: 2 years (2019–21). Project value: EUR 43,000.
- ★ 2019 – “The role of tandem repeats in neurodegenerative diseases: a genomic approach” (WP Leader). Funding: Italian Ministry for Education, University, and Research (MIUR), PRIN Research Projects of National Relevance, 2015, project no. 201534HNXC. Partners: University of Eastern Piedmont (Project Coordinator), IIT-CNR, University of Insubria. Project Coordinator: Prof. Sandra D’Alfonso (University of Eastern Piedmont). IIT-CNR Unit PI: Marco Pellegrini. Duration: 3 years (2017–20). Project value: EUR 325,000. Current products: 1 linear-time cache-oblivious algorithm and a tool for catalog-free, expanded tandem repeat discovery.

- ★ 2018 – “Computational methods for the comparison and classification of biological data” (Principal Investigator). Funding: Erasmus+ key action 107 – Higher Education Student and Staff Mobility between Programme and Partner Countries – International Credit Mobility, 2018, programme no. 2018-1-IT02-KA107-047786. Partners: University of Pisa (Italy; Programme Coordinator), University of Tunis El Manar (Tunisia). Programme Manager: Riccardo Grasso (University of Pisa). Project Coordinator/principal investigator: Davide Verzotto (University of Pisa). Duration: 2 years (2018–20). Project value: EUR 47,000. Current products: 1 manuscript accepted by Bioinformatics (Oxford Journals, IF 4.5), 1 published in DEXA-BIOKDD’19 Springer CCIS, 1 technical report, 1 metagenomic tool under development, and 1 deep learning tool under development.
- ★ 2017 – “Combinatorial methods for the analysis and compression of large collections of biological sequences.” Research Grant Holder (“Assegno di Ricerca”) at the University of Pisa within the MIUR SIR 2014 project n. RBSI146R5L (CMACBioSeq), Università di Pisa, PI: Prof. Giovanna Rosone. Specific funding: EUR 50,000. Current products: 1 extensive manuscript under submission to high esteem computing journals, 1 manuscript regularly accepted to SPIRE (a topical conference), 1 technical report, and 2 versatile tools.
- ★ 2015 – “A metagenomic study to understand the microbial basis of body odour in kids and teenagers” (Computational and Data Analytics Unit Leader). Funding: A\*STAR (Singapore) and Procter & Gamble Co. (P&G; USA); industrial collaboration. Partners: A\*STAR Genome Institute of Singapore (Singapore), and Procter & Gamble Co. (USA), Procter & Gamble Pte. Ltd. (Singapore). Project Coordinator: Niranjana Nagarajan (A\*STAR Genome Institute of Singapore). Unit Leader (Computational and Data Analytics): Davide Verzotto. Duration: 2 years (2015–17). Project value: USD 500,000. Current products: 1 journal article in BMC’s Microbiome (IF 9.1); 1 technical report; 1 technology disclosure; 1 novel computational framework.
- ★ 2012 – “*De novo* assembly of large eukaryotic genomes and cancer structural variation analysis with single molecule optical maps” (Computational Unit Leader). Funding: A\*STAR and Sciencewerke Pte. Ltd. (Singapore), industrial collaboration with OpGen Inc. (USA). Partners: A\*STAR Genome Institute of Singapore (2 units), Sciencewerke Pte. Ltd. (Singapore). Project Coordinator: Niranjana Nagarajan (A\*STAR Genome Institute of Singapore). Unit Leader (Computational Analysis): Davide Verzotto. Duration: 3 years (2012–15). Project value: USD 1,650,000. This project, based on my postdoctoral work, brought to 4 high-quality publications (2 journal articles in Oxford Journals’ *GigaScience* (IF 7.5), i.e. a topical and highly accessed data science article and a biotechnology

development article; 1 prestigious RECOMB extended abstract; 1 prestigious RECOMB-Seq regular conference talk), 2 patents, 1 technology disclosure, 1 abstract accepted at CSHL Biological Data Science, and 6 tools.

- ★ 2010 – “Alignment-free whole-genome sequence comparison and phylogeny reconstruction of eukaryotic, prokaryotic, and viral organisms,” including mammalian enhancer sequence analysis and human malaria parasite whole-genome phylogeny reconstruction (Principal Investigator and Member, respectively). Funding: Fondazione Ing. Aldo Gini and University of Padova (Italy). Partners: University of Padova (Italy), University of California, Riverside (USA). PIs: Davide Verzotto and Prof. Matteo Comin (University of Padova). Duration: 2 + 2 years (2010–14). Total value: EUR 68,000. This project, mainly related to my Ph.D. dissertation and subsequent advances, brought to 2 journal publications (BMC’s *Algorithms for Molecular Biology*—highly cited; *IEEE/ACM Transactions on Computational Biology and Bioinformatics*), 2 international conference publications (APBC; DEXA), 1 book chapter (Wiley), 1 final project report, and 3 tools.
- ★ 2009 – “Remote homology detection and classification of protein sequences by means of kernel methods and motif analysis” (M.S. and Ph.D. project). This project began with my Master’s thesis work and continued with my first Ph.D. project; it brought to 3 journal publications (*BMC Bioinformatics*; Liebert’s *Journal of Computational Biology*; MDPI’s *Algorithms*), 2 international conference publications (APBC; DEXA), 2 book chapters (Wiley; Dagstuhl), and 2 tools.

Selected awards:

- ★ Chair and Program Committee Chair of DEXA-BIOKDD'21;
- ★ Best paper at DEXA-BIOKDD'19;
- ★ Visiting Professor in Computer Science and Engineering at the University of Tunis El Manar (teaching mobility programme awarded by the University of Pisa);
- ★ Eligibility for Senior Lecturer/Associate Professor in UK, Australia, and Estonia (grade 9/level C);
- ★ Topic Editor (permanent) of *Algorithms* (MDPI) and Guest Editor of *Algorithms* Special Issue on "Biological Knowledge Discovery from Big Data" (2020);
- ★ 4 prestigious and highly competitive individual research fellowships/grants (two Marie Curie–ERCIM Alain Bensoussan Career Development Enhancer (ABCDE) fellowships; two Fondazione Ing. Aldo Gini research grants);
- ★ "Veneto Giovani Ricerca Futuro" best young researcher;
- ★ GIS Early Career Research Award;
- ★ US National Science Foundation (NSF) travel award by research proposal;
- ★ "Ateneo" scholarship, a highly selective and prestigious scholarship of the University of Padova reserved for the best 12 engineers in ICT topics.

## Academic Activity

**TEACHING** – I recently taught the academic courses of **Data Mining (and Machine Learning) Laboratory** and of **Knowledge Discovery Laboratory**, respectively, at the University of Pisa and at the University of Tunis El Manar (the largest university in Tunisia), both with responsibility and Adjunct/Visiting Professor title. Moreover, I previously taught, as “lecturer” for supplementary teaching activity (autonomous), the laboratory of theory and practice of **Foundations of Computer Science** at the University of Padova for two consecutive academic years. I have been responsible for the supervision of **7 graduate students** in Computer Science and Engineering (**3 of which Ph.D. students**), 1 full-time Bioinformatics Specialist, and other 6 research officers (Software Engineers and Bioinformaticians). I have a strong passion for teaching and training and aim to transfer this passion to both research fellows and staff, and graduate and undergraduate students in order to motivate them to study and deepen their knowledge and improve their research skills of scientific subjects. I love relating scholar problems to the latest research trends, problems and discoveries, but also to useful situations in the real life.

**COMMUNITY** – **Topic Editor** of *Algorithms* (MDPI) and also **Guest Editor** of *Algorithms* Special Issue on “Biological Knowledge Discovery from Big Data” (2020), **General co-Chair** and **Program committee Chair** of DEXA-International Workshop on Biological Knowledge Discovery from Big Data (BIOKDD) 2021 and **Program committee member** of DEXA-BIOKDD 2015–2021 (7 times). I obtained the Collaborative Institutional Training Initiative (**CITI**) **research ethics and leadership program certification** from the University of Miami (FL, USA) in 2014, and have been recognized as the **best young research translation talent** of Venice’s regions (Triveneto) for research translation in 2013 and “Veneto Giovani Ricerca Futuro” **best young researcher** from Consorzio Veneto di Ricerca in 2011. I qualified to the profession of Information Engineer in 2009 (EUR ING).

**COLLABORATIONS** – Liaised and engaged with industry through research agreement collaborations and by delivering services, patents, and software licenses to companies such as: **Procter & Gamble Co.** (OH, USA; Singapore), **OpGen Inc.** (MD, USA), **Sciencewerke Pte. Ltd.** (Singapore), **Exploit Technologies Pte. Ltd. (ETPL)**, (Singapore), **Duke-NUS medical division** (NC, USA; Singapore), **BioNano Genomics Inc.** (CA, USA), **Nabsys Inc.** (RI, USA), **Pacific Biosciences of California Inc.** (CA, USA), **10X Genomics Inc.** (CA, USA), **ZS Genetics Inc.** (MA, USA), and **National University Hospital** (Singapore). Moreover, I am currently collaborating with the **University of Pisa** (Italy), the **University of Tunis El Manar** (Tunisia), **A\*STAR** (Singapore), **Consorzio per il Trasferimento Tecnologico C2T** (Italy), **IIIT-Delhi** (India) and the **University of Zagreb** (Croatia), and will probably start collaborating with the

aforementioned **TRAPSE** network soon.

[www.AlboPretorionline.it](http://www.AlboPretorionline.it)

## Bibliometrics and Statistics

- Total number of scientific works: 36
- Peer-reviewed publications: 22 (**typical imprint:** large works, both theoretical and applied, in important venues)
- Patents and technology disclosures: 3
- Abstracts in proceedings: 1
- Technical reports: 8
- Open database journal publications: 2
  
- H-Index: 12
- Citations: 327
- Average number of journal citations: 17
- Total Impact Factor: 39.5
- Average Impact Factor: 4.4
  
- Courses taught: 4 (Twice the laboratory of theory and practice of Foundations of Computer Science (~supplementary teaching activity); Data Mining (and Machine Learning) Laboratory (responsibility); Knowledge Discovery Laboratory (responsibility)), in addition to extensive A\*STAR, CNR and University of California at Riverside seminar and training activity in Algorithms, Bioinformatics, Computational Genomics, Data Science and Big Data Analytics (8 years in total)
- Scientific presentations: 33 (10 at international conferences and meetings, among which RECOMB-Seq)
- Graduate students supervised: 7 (3 PhD students)
- Scientific tools (Bioinformatics): 16

## Elenco dei Titoli

- a) Ph.D. **Information Engineering** at the University of Padova, curriculum in Information Processing Systems (ING-INF/05) and Computer Science (INF/01).
- b1) Teaching activity 4 academic courses in ING-INF/05: **Foundations of Computer Science** (twice, ~supplementary teaching activity); **Data Mining Laboratory** (responsibility); **Knowledge Discovery Laboratory** (responsibility). In addition, extensive A\*STAR, CNR and University of California at Riverside seminar and training activity in Algorithms, Bioinformatics, Computational Genomics, Data Science and Big Data Analytics (8 years in total).
- b2) Graduate students 7 graduate students supervised, 3 of which **Ph.D. students**.
- c) Research experience **Researcher (RTD)** at the Institute for Informatics and Telematics, CNR, Pisa with >11 years experience in Computer Science and Information Processing Systems (in particular, in Algorithms, Bioinformatics and Computational Biology/Genomics, Data Mining and Machine Learning) at the following institutions: *University of Padova, University of California at Riverside, A\*STAR Genome Institute of Singapore, University of Pisa, ISBEM, IIT-CNR of Pisa*. Senior and/or corresponding author in 15 articles, and first-equivalent author in most published ones, some of which at **prestigious venues**: *Journal of Computational Biology, Bioinformatics, GigaScience, Algorithms for Molecular Biology, RECOMB-Seq*. I also have strong connections with the industry (e.g. P&G).
- e) Project activity 16 **Bioinformatics tools** and 3 data analytics pipelines with reports.
- f) Group/project organization 12 international projects: 3 as **principal investigator**; 6 as WP/Unit leader; 3 as project member or external collaborator.
- g) Technology transfer 1 **international patent**; 1 national patent; 1 technology disclosure.

- h1) Community organization 11 committees: 2 **editorial** (Topic Editor at MDPI Algorithms (permanent), Guest Editor of Algorithms Special Issue on BIOKDD 2020); 1 **General co-Chair** (DEXA-BIOKDD'21); 1 **PC Chair** (DEXA-BIOKDD'21); 7 **program member** (DEXA-BIOKDD). ACM SIGBIO, GRIN and GII member.
- h2) Knowledge dissemination 10 international conference and meeting presentations (including **RECOMB**).
- i) Awards 10: **Best paper** at DEXA-BIOKDD'19; **Visiting Professor** at the University of Tunis El Manar (the largest university in Tunisia) in 2019; 2 **Marie Curie-ERCIM** Alain Bensoussan Career Development Enhancer (ABCDE) fellowships; 2 **Fondazione Aldo Gini** research grants; **Veneto Giovani Ricerca Futuro** best young researcher award; **GIS Early Career** Research Award; US National Science Foundation travel award by research proposal; "Ateneo" 3-year Ph.D. scholarship. In addition, Information Engineering profession habilitation in 2009.

## Elenco attività didattiche

Nell'Anno Accademico 2018–19 ho tenuto i moduli accademici di **Data Mining** (e Machine Learning) **Laboratory** e di **Knowledge Discovery Laboratory**, rispettivamente, presso l'Università di Pisa e l'University of Tunis El Manar, la più grande università della Tunisia, come *responsabile* di modulo. Inoltre, ho effettuato *attività didattica integrativa* (autonoma) per il laboratorio di **Fondamenti di Informatica** presso l'Università di Padova per due anni accademici consecutivi (2008–09 e 2009–10), contribuendo anche alla realizzazione delle prove per gli esami di profitto.

Sono stato *co-responsabile* della **supervisione** di 7 studenti in Informatica e Ingegneria Informatica (**3** dei quali **dottorandi**), 1 informatico specialista in bioinformatica e altre 6 persone addette alla ricerca (ingegneri informatici e bioinformatici).

Tra il 2012 e il 2017 ho tenuto ampia **attività seminariale** come *Postdoctoral/Research Fellow* presso l'Agency for Science, Technology and Research di Singapore (A\*STAR) nei temi di bioinformatica, genomica computazionale, data science e big data analytics. In precedenza, tra il 2010 e il 2011, ho tenuto attività seminariale presso l'University of California, Riverside (USA) come *Visiting Scholar* e *Junior Specialist*.

Ho una forte passione per l'insegnamento universitario e la formazione orientata alla ricerca e alla risoluzione di problemi computazionali, e mi propongo di trasferire questa passione sia ad assegnisti e personale di ricerca che a studenti triennali e magistrali, al fine di motivarli a studiare e approfondire le loro conoscenze, e migliorare così le loro capacità, soprattutto di ricerca e applicazione della stessa, in materie scientifiche e informatiche. Amo mettere in relazione problemi scientifici, algoritmici e computazionali con le ultime tendenze, problemi e scoperte in ricerca, ma anche con situazioni utili nella vita reale.

Tra i titoli, ho allegato le **valutazioni degli studenti** (*molto buone/ottime*), per il modulo di Data Mining Laboratory, A.A. 2018/19, Laurea Magistrale in Computer Engineering, tenuto presso il Dipartimento di Ingegneria dell'Informazione dell'Università di Pisa.

Più in dettaglio, ho tenuto le seguenti attività didattiche (4 corsi accademici, di cui 2 con responsabilità di modulo e 2 di didattica integrativa, + ampia attività seminariale e di formazione):

- Giugno 2019–presente:

**Attività seminariale** come *Ricercatore di III livello* presso **Istituto di Informatica e Telematica del CNR di Pisa**.

Tematiche di **Algoritmi, Bioinformatica, Genomica Computazionale e Data Science**.

Lingua: italiana.

- A.A. 2018–19:

**Responsabile** del modulo **Data Mining Laboratory** (ING-INF/05).

Laurea Magistrale in Computer Engineering e Laurea Magistrale in Bionics Engineering, Scuola di Ingegneria dell'**Università di Pisa** congiuntamente con la **Scuola di Studi Avanzati Sant'Anna**.

Tenuto presso il Dipartimento di Ingegneria dell'Informazione dell'Università di Pisa.

Lingua: inglese.

- A.A. 2018–19:

*Visiting Professor* e **responsabile** del modulo **Knowledge Discovery Laboratory**.

Laurea Magistrale in Information Systems Engineering.

**University of Tunis El Manar, Tunisia.**

Lingua: inglese.

- Ottobre 2012–settembre 2017:

**Attività seminariale e di formazione** come *Postdoctoral/Research Fellow* per **Agency for Science, Technology and Research (A\*STAR), Singapore**.

Tenuta presso/per A\*STAR Genome Institute of Singapore, A\*STAR Computational Resource Centre (/Supercomputing Center), e Procter & Gamble Inc. (USA e Singapore).

Tematiche: **Bioinformatica, Genomica Computazionale, Data Science, e Big Data Analytics.**

Lingua: inglese.

- Gennaio 2010–aprile 2011:

**Attività seminariale** come *Visiting Scholar* e *Junior Specialist* presso **University of California at Riverside, USA**, finanziata da Università degli Studi di Padova e dalla prestigiosa Fondazione Ing. Aldo Gini.

Tematiche: **Bioinformatica e Genomica Computazionale.**

Lingua: inglese.

- AA.AA. 2008–09 e 2009–10:

**Attività didattica integrativa** (in modalità autonoma, come “lecturer”) per 40 ore annuali, 2 teoriche e 2 pratiche per settimana di insegnamento, per il laboratorio di **Fondamenti di Informatica (ING-INF/05)**, contribuendo anche alla realizzazione di una delle tre prove previste per gli esami di profitto.

Tematiche: **fondamenti dei calcolatori elettronici e dell’informatica, algoritmi, strutture dati, complessità computazionale, programmazione orientata agli oggetti, il linguaggio Java.**

Corsi congiunti della Classe delle Lauree (triennali) in Ingegneria dell’Informazione, Scuola di Ingegneria, Dipartimento di Ingegneria dell’Informazione, **Università degli Studi di Padova.**

Lingua: italiana (e, separatamente, inglese per gli studenti stranieri, a richiesta).

# Davide Verzotto, Ph.D.

IIT – CNR / ISBEM  
Via G. Moruzzi, 1  
56124 Pisa – Italy

Phone: +39 050 3158274  
E-mail: [davide.verzotto@iit.cnr.it](mailto:davide.verzotto@iit.cnr.it)  
LinkedIn/Skype: [davideverzotto](#)

## Appointments

Jun 2019–present: Researcher (“Ricercatore di III livello a tempo determinato”) in Algorithms and Computational Mathematics, with majors in Algorithms, Bioinformatics, Computational Biology, and Data Science. Institute for Informatics and Telematics (IIT), CNR, Pisa, Italy. (Currently in charge by ISBEM since Jun 2020).

Oct 2018–Sep 2019: Adjunct Professor (current) and Lecturer of Data Mining Laboratory (ING-INF/05), M.S. in Computer Engineering and M.S. in Bionics Engineering (joint with the Sant’Anna School of Advanced Studies), School of Engineering. Main language: English. Department of Information Engineering, University of Pisa, Italy.

Jan 2019–Jun 2019: Researcher (III level) with majors in Biological Data Mining, Machine Learning, and Health Informatics (Consultant Jan–Feb 2019). Euro-Mediterranean Biomedical Scientific Institute (ISBEM), Pisa and Mesagne, Italy (ex spin-off University of Pisa, IFC-CNR and ASL Brindisi, in collaboration with the Universities of Salento, Oslo, Antwerp, LUM, ASLs of the Apulia Region).

Apr 2019–May 2019: Visiting Professor in Computer Science & Engineering and Lecturer of Knowledge Discovery Laboratory, M.S. in Information Systems Engineering. University of Tunis El Manar, Tunisia.

Oct 2017–Dec 2018: Research Fellow in Computer Science (“Assegno di Ricerca” in INF/01), with majors in Algorithms, Bioinformatics, and Machine Learning. Project Title: *Computational Methods for the Analysis and Compression of Large Collections of Biological Sequences*, Scientific Supervisor: Dr. Giovanna Rosone. Department of Computer Science, University of Pisa, Italy.

Oct 2015–Sep 2017: Research Fellow and Project Leader in Bioinformatics, Computational Biology, and Big Data Analytics in collaboration with Procter & Gamble (USA) (Consultant Jan–Sep 2017). A\*STAR Genome Institute of Singapore.

Oct 2012–Oct 2015: Postdoctoral Fellow in Bioinformatics and Computational Biology, Dr. Niranjana Nagarajan’s Lab. A\*STAR Genome Institute of Singapore.

Jan 2009–Sep 2012: Research Assistant in Computer Science & Engineering (ING-INF/05), with majors in Algorithms, Bioinformatics, Data Mining, and Machine Learning, Prof. Matteo Comin's (and Prof. Alberto Apostolico) Lab. Department of Information Engineering, University of Padova, Italy.

Jan 2010–Apr 2011: Visiting Scholar and Junior Specialist in Computer Science & Engineering, with majors in Algorithms and Computational Biology, Prof. Stefano Lonardi's Lab. Department of Computer Science and Engineering, University of California, Riverside, USA.

Oct 2008–Jan 2010: "Lecturer" for supplementary teaching activity (autonomous, 40 hours annually) for the laboratory (of theory and practice) of Foundations of Computer Science (ING-INF/05) (including algorithms, data structures, computational complexity, object-oriented programming, the Java language). Joint B.S. courses in Information Engineering, School of Engineering. Department of Information Engineering, University of Padova, Italy.

## Education

Ph.D. Information Engineering. University of Padova, Italy 2012. *Dissertation*: Advanced Computational Methods for Massive Biological Sequence Analysis. *Advisor*: Prof. Matteo Comin.

M.S., B.S. Computer Science & Engineering. University of Padova, Italy 2008 and 2006, respectively (area ING-INF/05). *Final Grade*: 110 out of 110. *Honors*: *Summa cum laude* (ECTS Grade A).

High School Diploma. Business Administration and Management. I.I.S.S. Sandro Pertini, Camposampiero, PD, Italy 2003. *Minors*: Computer Science and Information Systems.

## Fields of Interest

(String) Algorithms & Data Structures; Bioinformatics & Computational Biology/Genomics; Combinatorics on Words, Data Indexing and Compression, Information Theory; Machine Learning & Big Data Analytics; Pattern Discovery & Scalable Data Mining.

**Computer Languages:** Java, R, Python, Bash/Awk, Perl, PHP, SQL, UML,  $\text{\LaTeX}$ .

## Honors, Awards & Fellowships

2019 – Best paper at DEXA-BIOKDD'19.

2019 – Teaching mobility programme as Visiting Professor in Computer Science & Engineering awarded by the University of Pisa with CUP 154F18000080005, to be held at the University of Tunis El Manar under the ERASMUS+ KA107 Programme 2018–20.

2018, 2019 – Coordinator and Main Reference for the inclusion of the University of Tunis El Manar in the proposal of the University of Pisa for the ERASMUS+ KA107 International Credit Mobility Programmes 2018–20 and 2019–21.

2016 – Eligibility for Senior Lecturer/Associate Professor in UK, Australia, and Estonia (grade 9/level C).

2012, 2015 – Two Marie Curie–ERCIM Alain Bensoussan Career Development Enhancer (ABCDE) individual research fellowships cofunded by the European Commission. ERCIM is the European Research Consortium for Informatics and Mathematics; the fellowship typically has an acceptance rate of around 7% out of over 300 candidates.

2015 – A\*STAR GIS Early Career Researcher award.

2013 – “Città Impresa,” Best Young Talent for research translation award of Venice’s regions (Triveneto).

2010, 2011 – Two “Fondazione Ing. Aldo Gini” individual research awards with grants.

2011 – “Veneto Giovani Ricerca Futura,” Best Young Researcher award and prize by Consorzio Veneto di Ricerca.

2011 – US National Science Foundation (NSF) travel award (by research proposal).

2009 – “Ateneo” Scholarship for a 3-year Ph.D. programme at the University of Padova, awarded to the best 12 Engineers in ICT topics, January 2009–December 2011.

2003 – Scholarship for attending a Bachelor’s degree at the University of Padova (Italy).

## Patents

Verzotto, D. (principal inventor; contribution: 75%), Nagarajan, N. (2018). “Bioinformatics Data Processing Systems.” International patent no. WO2016148650A1, assigned to A\*STAR–Singapore, August 30, 2018, citations: 2.

Verzotto, D. (principal inventor; contribution: 70%), Šterbić, L., Šikić, M., Nagarajan, N. (2016). "Super-Scaffolding of Large Eukaryotic Genomes with Single Molecule Maps." Technology disclosure, assigned to A\*STAR, Singapore, February 10, 2016.

Verzotto, D. (principal inventor; contribution: 75%), Nagarajan, N. (2015). "Index-based Map-to-Sequence Alignment in Large Eukaryotic Genomes." National patent no. 102015020-27V, assigned to A\*STAR, Singapore, March 17, 2015.

## Certifications & Qualifications

2014 – Collaborative Institutional Training Initiative (CITI) Research Ethics Program, University of Miami (Miami, FL, USA), November 19, 2014, ID: RCR/1-14081011.

Modules: Responsible Conduct of Research, Mentoring, Research Misconduct, Data Management, Authorship, Peer Review, Conflicts of Interest, Collaborative Research, Human Subjects Research, Animal Subjects Research.

2009 – Qualification to the profession of Information Engineer, EUR ING. University of Padova and Order of Engineers of the Province of Padova (Italy), February 4, 2009.

2003 – Qualification to the level of Qualified Accountant. I.I.S.S. Sandro Pertini, Camposampiero (PD, Italy), July 1, 2003.

2002 – Regional qualification to the XIV International Olympiad in Informatics. Venice (Italy), January 16, 2002.

## Working Articles

Verzotto, D., Corrado, L., D'Aurizio, R., Manzini, G., D'Alfonso, S., and Pellegrini, M. (2021). "TREDflex: A Cache-Oblivious Optimal Method for the Discovery of Expanded and Interspersed Tandem Repeats."

Amraoui, H., Elloumi, M., Marcelloni, F., Mhamdi, F., and Verzotto, D. (2020). "Integrated Data Mining and Machine Learning Methods for Whole-Genome Biomarker Identification and Metagenomic Sequence Classification."

Ayari, M.I., Baccu, D., Elloumi, M., Podda, M., and Verzotto, D. (2020). "Predicting Patient Survival by Learning Non-Isomorphic Structured Transductions from Subclonal Tumour Populations."

Verzotto, D., Garofalo, F., Sciortino, M., Rosone, G. (2020). "Efficient Cache-Oblivious Computation of Matching Statistics and the Average Common Substring."

Rosone, G., and Verzotto, D. (2020). “Multi-String Average Common Substring via the Colored Longest Common Prefix Array.”

Ayari, M.I., Bacciu, D., Elloumi, M., Podda, M., and Verzotto, D. (2020). “Uncovering Evolutionary Cancer Driver Pathways from Subclonal Trees using Deep Learning.”

Verzotto, D., Teo, A.S.M., Šterbić, L., Chia, B.K.H., Šikić, M., Hillmet, A.M., and Nagarajan, N. (2020). “CROM: Super-Scaffolding of Large Eukaryotic Genomes with Single Molecule Maps” (extended manuscript).

Autio, M.I., Verzotto, D., Tan, L.W., Foo R. (2020). “CRISPR/CAS9-based Efficient Genome Editing on Human and Mouse based on Genomic Safe Harbours.”

## Publications

### Journal Articles

Amraoui, H., Elloumi, M., Marcelloni, F., Mhamdi, F., and Verzotto, D. "Theoretical and Practical Analyses in Metagenomic Sequence Classification." Accepted by *Bioinformatics* (Oxford Journals) (IF: 4.5).

Lam, T.H., Verzotto, D., Brahma, P., Ng, A.H.Q., Hu, P., Schnell, D., Tiesman, J., Kong, R., Ton, T.M.U., Li, J., Ong, M., Lu, Y., Swaile, D., Liu, P., Liu, J., and Nagarajan, N. (2018). "Understanding the Microbial Basis of Body Odor in Pre-Pubescent Children and Teenagers" – A Computational Analysis. *Microbiome* (BMC), 6:213; industrial collaboration with Procter & Gamble Co., USA-Singapore (IF: 9.1).

Verzotto, D., Teo, A.S.M., Hillmer, A.M., and Nagarajan, N. (2016). "OPTIMA: Sensitive and Accurate Whole-Genome Alignment of Error-prone Genomic Maps by Combinatorial Indexing and Technology-Agnostic Statistical Analysis." *GigaScience* (Oxford Journals/BMC), 5: 2 (IF: 7.5).

Teo, A.S.M., Verzotto, D., Yao, F., Nagarajan, N., and Hillmer, A.M. (2015). "Single-Molecule Optical Genome Mapping of a Human HapMap and a Colorectal Cancer Cell Line" – A Computational Analysis. *GigaScience* (Oxford Journals/BMC), 4: 65 (IF: 7.5).

Comin, M., and Verzotto, D. (2014). "Beyond Fixed-Resolution Alignment-free Measures for Mammalian Enhancers Sequence Comparison." *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 11(4): 628–637 (IF: 2.9).

Comin, M., and Verzotto, D. (2013). "Filtering Degenerate Motifs with Application to Protein Sequence Analysis." *Algorithms* (MDPI), Special Issue on Algorithms for Sequence Analysis and Storage, 6(2): 352–370. Veli Mäkinen (Ed.) (IF: 1.6, Scopus CS: 2.7).

Comin, M., and Verzotto, D. (2012). "Alignment-free Phylogeny of Whole Genomes using Underlying Subwords." *Algorithms for Molecular Biology* (BMC), 7: 34 (IF: 2).

Comin, M., and Verzotto, D. (2011). "The Irredundant Class Method for Remote Homology Detection of Protein Sequences." *Journal of Computational Biology* (Liebert), 18(12): 1819–1829 (IF: 2).

Comin, M., and Verzotto, D. (2010). "Classification of Protein Sequences by Means of Irredundant Patterns." *BMC Bioinformatics*, 11: S16 (IF: 3).

### Book Chapters and Invited Contributions

Comin, M., and Verzotto, D. (2016). "Alignment-free Measures for Whole-Genome Comparison." In *Pattern Recognition in Computational Molecular Biology: Techniques and Approaches*,

Pattern Recognition in Sequences, Chapter 3. M. Elloumi, C.S. Iliopoulos, J.T.L. Wang, and A.Y. Zomaya (Eds.), Wiley Book Series on Bioinformatics: Computational Techniques and Engineering, Wiley, New Jersey, USA.

Comin, M., and Verzotto, D. (2013). "Comparing, Ranking, and Filtering Motifs with Character Classes: Application to Biological Sequences Analysis." In *Biological Knowledge Discovery Handbook: Preprocessing, Mining and Postprocessing of Biological Data*, Biological Feature Selection, Chapter 13. M. Elloumi and A.Y. Zomaya (Eds.), Wiley Book Series on Bioinformatics: Computational Techniques and Engineering, Wiley, New Jersey, USA.

Comin, M., and Verzotto, D. (2010). "Remote Homology Detection of Protein Sequences." In *Structure Discovery in Biology: Motifs, Networks & Phylogenies*, Dagstuhl Seminar Proceedings, vol. 10231. A. Apostolico, A. Dress, and L. Parida (Eds.), Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl, Germany.

#### *International Conference Proceedings*

Amraoui, H., Elloumi, M., Marcelloni, F., Mhamdi, F., and Verzotto, D. (2019). "Theoretical and Practical Analyses in Metagenomic Sequence Classification." Proceedings of the Thirtieth International Conference on Database and Expert Systems Applications (DEXA 2019), BIOKDD, Springer CCIS, vol. 1062, Linz, Austria.

Garofalo, F., Rosone, G., Sciortino, M., and Verzotto, D. (2018). "The Colored Longest Common Prefix Array Computed via Sequential Scans." Proceedings of the Twenty-Fifth International Symposium on String Processing and Information Retrieval (SPIRE 2018), Springer LNCS, vol. 11147, Lima, Peru.

Verzotto, D., Teo, A.S.M., Šterbić, L., Chia, B.K.H., Šikić, M., Hillmer, A.M., and Nagarajan, N. (2016). "Super-Scaffolding of Large Eukaryotic Genomes with Single Molecule Maps." Proceedings of the Twentieth Annual International Conference on Research in Computational Molecular Biology (RECOMB 2016), Santa Monica, CA, USA (extended abstract).

Verzotto, D., Teo, A.S.M., Šterbić, L., Chia, B.K.H., Šikić, M., Hillmer, A.M., and Nagarajan, N. (2016). "Super-Scaffolding of Large Eukaryotic Genomes with Single Molecule Maps." Proceedings of the Second CSHL Meeting on Biological Data Science (2016), Cold Spring Harbor, NY, USA (abstract).

Verzotto, D., Teo, A.S.M., Hillmer, A.M., and Nagarajan, N. (2015). "Index-based Map-to-Sequence Alignment in Large Eukaryotic Genomes." Proceedings of the Fifth RECOMB Annual Workshop on Research in Massively Parallel Sequencing (RECOMB-Seq 2015), within RECOMB, Warsaw, Poland (Accepted: 27%).

Comin, M., and Verzotto, D. (2014). "Variable-Length Alignment-free Measures for Mammalian Enhancers Sequence Comparison." Proceedings of the Twelfth International Asia-Pacific Bioinformatics Conference (APBC 2014), Shanghai, China (IEEE proceedings, accepted: 24 %).

Comin, M., and Verzotto, D. (2013). "Reducing the Space of Degenerate Patterns in Protein Remote Homology Detection." Proceedings of the Twenty-Fourth International Workshop on Database and Expert Systems Applications (DEXA 2013), BIOKDD (IEEE proceedings).

Comin, M., and Verzotto, D. (2012). "Whole-Genome Phylogeny by Virtue of Unic Subwords." Proceedings of the Twenty-Third International Workshop on Database and Expert Systems Applications (DEXA 2012), BIOKDD (IEEE proceedings).

Comin, M., and Verzotto, D. (2010). "Classification of Protein Sequences by means of Irredundant Patterns." Proceedings of the Eighth International Asia-Pacific Bioinformatics Conference (APBC 2010), L. Parida and G. Myers (Eds.), Bangalore, India (Accepted: 28 %).

#### *Other Manuscripts*

Rosone, G., and Verzotto, D. (2018). "Multi-String Average Common Substring via the Colored Longest Common Prefix Array." Technical Report, Department of Computer Science, University of Pisa, Italy.

Verzotto, D., Lam, T.H., Brahma, P., Ng, A.H.Q., Hu, P., Schnell, D., Tiesman, J., Swaile, D., Lu, T., Liu, J., and Nagarajan, N. (2017). "Understanding the Causes of Body Odor in Kids and Teenagers via Whole-Metagenome Skin Microbial Profiling and Dynamic Analysis." Technical Report, A\*STAR Genome Institute of Singapore, Singapore and Procter & Gamble Co., USA-Singapore (industrial collaboration).

Verzotto, D. (2012). "Advanced Computational Methods for Massive Biological Sequence Analysis." Ph.D. Thesis in Information Engineering, curriculum I.C.T., Department of Information Engineering, University of Padova, Italy.

Verzotto, D. (2011). "A Mathematical Analysis of Repeated Games in the Computation of Game and Market Equilibria. Lecture Notes in Game Theory, Ph.D. School in Information Engineering, Department of Information Engineering, University of Padova, Italy.

Verzotto, D. (2010). "A Mathematical Excursion on the Classification of Data using String Kernels along with Support Vector Machines." Technical Report, Department of Information Engineering, University of Padova, Italy.

Verzotto, D. (2009). "On the Discovery and Application of Irredundant Common Patterns with Don't Cares." Poster at the Third International School and Workshop on The Analysis of Patterns, Pula, Cagliari, Italy.

Verzotto, D. (2008). "Machine Learning in Bioinformatics: Classification of Protein Sequences using Kernel Functions Based on Irredundant Patterns." M.S. Thesis in Computer Science and Engineering, Department of Information Engineering, University of Padova, Italy.

Dindo, S., Lucchetta, N., Peruzzo, A., Scquizzato, M., Scremin, T., Vantini, M., and Verzotto, D. (2007). "Machine Learning: State-of-the-Art, SVMs, and Recent Applications." Lecture Notes in Artificial Intelligence, M.S. in Computer Science and Engineering, Department of Information Engineering, University of Padova, Italy.

Verzotto, D. (2006). "Design, Implementation, and Analysis of A Three-Tier Complete Course Management Web Application with an In-Depth Analysis of the Presentation Logic." B.S. Thesis in Computer Science and Engineering, Department of Information Engineering, University of Padova, Italy.

## Grants & Research Collaboration Agreements (RCAs)

- ★ 2019-pre Principal Investigator in: 2019-1-IT02-KA107-061955 Project, “Integrated Data Mining and Machine Learning Methods for Biological Sequence Analysis and Stratified Genomics,” University of Pisa (Italy) and University of Tunis El Manar (Tunisia), granted by ERASMUS+ KA107 International Credit Mobility Programme 2019-21, EUR 42,540.
- ★ 2019-pre WP Leader in: PRIN Project 201534HNXC, “The Role of Tandem Repeats in Neurodegenerative Diseases: a Genomic and Proteomic Approach”, PI: Dr. Sandra D’Alfonso, co-PI: Dr. Marco Pellegrini, IIT - CNR (Italy), granted by the Italian Ministry for Education, University, and Research (MIUR), EUR 325,000, ~USD 374,000.
- ★ 2018-2020 Principal Investigator in: 2018-1-IT02-KA107-047786 Project, “Computational Methods for the Comparison and Classification of Biological Data,” University of Pisa (Italy) and University of Tunis El Manar (Tunisia), granted by ERASMUS+ KA107 International Credit Mobility Programme 2018-20, EUR 46,830.
- ★ 2019-2019 WP Leader: InnoNetwork grant no. 1P8ZWR8, Project ‘GEODETICA’, “Innovative Technologies for the Integration of Territorial Social and Health Services”, ISBEM (Italy), granted by POR Puglia FSER-FSE 2014-20, EUR 1,492,402, ~USD 1,720,000. Leading and coordinating the ‘NOVA’ WP and Unit, aimed to build a novel biomedical, big data management, time-series analytics, and predictive system to prevent acute events of common chronic diseases.
- ★ 2017-2018 Research grant holder at the University of Pisa with project title “Combinatorial Methods for the Analysis and Compression of Large Collections of Biological Sequences,” within the MIUR SIR 2014 project n. RBSI146R5L (CMACBioSeq, PI: Dr. Giovanna Rosone, valore totale: EUR 420,310), specific value: EUR 50,000.
- ★ 2017-2018 Collaborator in: MIUR-SIR 2014, grant no. RBSI14STDE, Project ‘LISTIT’, “Learning Non-Isomorphic Structured Transductions for Image and Text Fragments,” PI: Dr. Davide Bacciu, University of Pisa (Italy), granted by MIUR, EUR 320,000, ~USD 368,000.
- ★ 2015-2017 Computational Unit Leader in: “A Metagenomic Study to Understand the Microbial Basis of Body Odour,” PI: Dr. Niranjan Nagarajan, A\*STAR GIS, granted by A\*STAR and Procter & Gamble Co. (P&G) (OH, USA; Singapore) (industrial collaboration, RCA), ≥14 components, ~USD 500,000.
- ★ 2012-2015 Computational and Data Analytics Unit Leader in: “Cancer Structural Genomics and *De Novo* Assembly of Polyploid Genomes,” PI: Dr. Niranjan Nagarajan, co-PI: Dr. Axel M. Hillmer, A\*STAR GIS, granted by A\*STAR and Sciencewerke Pte. Ltd. (Singapore), in collaboration with OpGen Inc. (Maryland, USA) – total amount: SGD 2,042,100, ~USD 1,650,000 (industrial collaboration, RCA), ≥12 components.

- ★ 2013–2016 Collaborator in: PRIN Project 20122F87B2, “Compositional Approaches for the Characterization and Mining of Omics Data,” PI: Dr. Cinzia Pizzi, co-PI: Prof. Matteo Comin, University of Padova (Italy), granted by MIUR.
- ★ 2012–2014 Member in: Ateneo Project CPDA110239, “Pattern Discovery and Computational Problems for Whole Genomes Comparison,” PI: Prof. Matteo Comin, University of Padova (Italy), granted by the University of Padova – total amount: EUR 48,062, ~USD 55,000.
- ★ 2010–2011 Member in: NIH R01-AI085077-01A1, “Understanding the Role of Nucleosomes Turnover in the Malaria Parasite Infection,” co-PI: Prof. Stefano Lonardi, University of California, Riverside (California, USA), granted by U.S. National Institutes of Health (NIH) – total amount: USD 1,839,568. A joint project with Prof. Karine Le Roch’s Malaria Lab (PI), Institute for Integrative Genome Biology, University of California, Riverside.
- ★ 2010–2011 Principal Investigator in: “Algorithms for Studying, Comparing, and Classifying the Genome Sequence of the Human Malaria Parasite *Plasmodium falciparum*,” University of Padova (Italy) and University of California, Riverside (California, USA); granted by Fondazione Ing. Aldo Gini and the University of Padova (Italy) – total amount: EUR 19,700, ~USD 23,000.

## Professional Activities

Scientific tools developed:

TREDFLEX: Linear-time tool for expanded/flexible tandem repeats discovery.

EMESC: Extensive pattern analysis for metagenomic sequence classification via integrated data mining and classification phases.

DL-SUBCLONALTREES: A deep neural network learning method for stratified cancer genomics and precision medicine by subclonal population tree and pattern analysis.

MULTIACS: Efficient cache-oblivious computation of matching statistics and the average common substring in an all-vs-all and derivative fashions for simultaneous genome comparison of large sequence collections via the Colored Longest Common Prefix array (cLCP).

cLCP and cLCP-MACS: Solving the multi-string average common substring problem (multi-string ACS) for efficient, lightweight one-to-many simultaneous genome comparisons of large sequence collections via the cLCP in semi-external memory.

CROM: Complex/Cancer genome Reconstruction with single-molecule Optical Mapping, an efficient and cost-effective tool for *de novo* super-scaffolding of large eukaryotic genomes via statistical learning.

OPTIMA-DENOVO: Whole-genome *de novo* map assembler in large eukaryotic genomes.

PTOLEMY: Efficient consensus restriction map construction from error-prone single molecule maps.

Z\*: Nonparametric statistical testing of candidate alignment solutions.

OPTIMA and OPTIMA-OVERLAP: Glocal and overlap alignment of single molecule genomic maps based on a novel seed-and-extend method that is the first to index continuous-valued fragment sizes with errors, statistically evaluate candidate alignments in a technology-agnostic fashion, and extend this paradigm to overlap alignments with a sliding window approach.

UNDER<sub>2</sub>: Enhancer sequence comparison based on variable-length subword compositions, enabling the efficient detection of horizontal genomic transfers in mammalian genomes.

UNDERLYING APPROACH (UA): Whole-genome phylogeny reconstruction based on *unic* subword compositions.

HISTONE BINDING SITE MAXIMAL PHASE DETECTION (HIMAX): Detection of sequence preferences for stable nucleosome positioning by means of discriminative, maximally-phased repetitions.

DEGENERATE MOTIF FILTERING (DMF): Identification of subtle signals in genome and protein sequences by comparing, ranking, and filtering degenerate motifs extracted with State-of-the-Art motif discovery tools.

IRRREDUNDANT CLASS: Classification of remote evolutionary-related protein sequences by means of irredundant common motifs and support vector machines (SVMs).

#### Graduate Students supervised (no. 6):

Mohamed Ilyes Ayari, Graduate Student in Computer Science (Ph.D. program qualification 2017–2021), University of Tunis El Manar (Tunisia), 2018–present (co-supervision).

Preliminary dissertation on *Deep Learning Approaches for the Analysis of Cancer Samples and Multiple Biological Data Comparison in Personalized Medicine*.

Hend Amraoui, Graduate Student in Computer Science (Ph.D. program qualification 2015–2020), University of Tunis El Manar (Tunisia), 2018–present (co-supervision).

Preliminary dissertation on *Algorithms for the Detection of Significant Patterns and DNA Variants Responsible for Microbial Diversity and Multifactorial Diseases*.

Marco Podda, Graduate Student in Computer Science (Ph.D. program qualification 2017–2020), University of Pisa (Italy), 2017–2018 (partial supervision; Prof. Alessio Micheli and Dr. Davide Bacciu’s Lab). Preliminary dissertation on *Generative Deep Learning Models for Graphs* with a focus on *Subclonal Tumour Population Analysis*.

Burton K.H. Chia, Bioinformatics Specialist, A\*STAR GIS (Singapore), 2013–2016. Now Bioinformatics Specialist at National Cancer Centre Singapore (Singapore).

Luka Šterbić, Graduate Student in Computer Science and Engineering, University of Zagreb (Zagreb, Croatia), 2013–2014. Now Software Engineer at Facebook, Inc. (Menlo Park, CA, USA).

Yogesh Poddar, Graduate Student in Mathematics and Computing, Indian Institute of Technology, Kharagpur (Kharagpur, West Bengal, India), 2014. Now Analyst at Goldman Sachs Group, Inc. (Bengaluru, India).

Giovanni Melis, Graduate Student in Computer Science and Engineering, University of Padova (Padova, Italy), 2009. Now Senior Scrum Master at Breton S.p.A. (Castello Di Godego, Italy).

Presentations at Conferences, Invited Lectures, and Seminars (no. 33):

“Algorithms for Data Science and Computational Biology.” Bioinformatika 8, Department of Biology, University of Florence, Florence, Italy, October 4, 2019.

“Information Theory and Data Science approaches to Biological Sequence Comparison and Pattern Discovery.” Department of Science and Technological Innovation, University of Eastern Piedmont, Alessandria, Italy, June 6, 2019.

“Advanced Methods for Data Science and Computational Biology.” Department of Mathematics and Geosciences, University of Trieste, Italy, January 21, 2019.

“Computational Modeling and Complexity of (Biological) Sequence Comparison based on Information Theory.” Department of Mathematics “Tullio Levi-Civita,” University of Padova, Italy, October 3, 2018.

“Indexing, Lightweighting, and Machine Learning: Recent Challenges, Solutions, and Business Opportunities.” Amazon Europe for Machine Learning, Amazon Development Centre, Madrid, Spain Sep 24, 2018.

“Modern Approaches to Data Management, Indexing and Mining of Structured, Semi-Structured and Unstructured Data.” School of Computer Science, University of Manchester, Manchester, UK, Sep 14, 2018.

“Data-Driven Data Mining and Machine Learning Approaches in Bioinformatics and Computational Systems Biology.” Department of Information Engineering and Mathematics, University of Siena, Siena, Italy, Nov 22, 2017.

“Probabilistic Graph Mining and Analytics in Computational Sciences.” Department of Environmental Sciences, Informatics and Statistics, Ca’ Foscari University of Venice, Mestre, Venice, Italy, May 16, 2017.

“Scalable Data Mining and Machine Learning Applications in Bioinformatics and Computational Biology: Towards Data-driven Science and Real-Time Big Data Analytics.” Department of Mathematics “Tullio Levi-Civita,” University of Padova, Italy, March 1, 2017.

“Computational Methods for Whole-Genome and Metagenome Analysis using Long-Range Information Technologies.” Molecular and Statistical Biophysics, SISSA—International School for Advanced Studies, Trieste, Italy, December 5, 2016.

“Understanding the Poly-Microbial Nature for Body Odor Generation in Kids and Teenagers, and Identification of Key Enzymatic Targets for Intervention.” P&G International Joint Meeting, Procter & Gamble – Research and Development, Cincinnati (OH, USA) / P&G Innovation Center (Singapore), October 20, 2016.

“Whole-Metagenome Analysis of Underarm, Neck, and Head Sweat in Kids and Teenagers Reveals Key Microbial Communities and Metabolic Pathways Linked to Body Odor.” P&G International Joint Meeting, Procter & Gamble – Research and Development, Cincinnati (OH, USA) / P&G Innovation Center (Singapore), June 30, 2016.

“Next-Generation Long-Range Genomic Information Technologies and Applications.” A\*STAR GIS Early Career Researcher Retreat, Bintan Lagoon Resort, Bintan, Indonesia, March 3, 2016.

“Strategies and Technologies for Long-Range Genomic Information and Pathogen Discovery”. J.S. Davies Research Center, School of Animal and Veterinary Sciences, University of Adelaide, Roseworthy, SA, Australia, February 11, 2016.

“Super-Scaffolding of Large Eukaryotic Genomes and Dissection of Human Genome Hotspots.” GIS Research Update, A\*STAR, Biopolis science park, Singapore, February 10, 2016.

“Computational Challenges in Metagenomics with Next-Generation Technologies.” Centre for Host-Microbiome Interactions, King’s College London, London, UK, January 6, 2016.

“Information-theoretic and Machine Learning approaches to Sequence and Optical Map Comparison and Analysis.” Department of Environmental Sciences, Informatics and Statistics, Ca’ Foscari University of Venice, Mestre, Venice, Italy, December 3, 2015.

“On the Paradigms of Information in Algorithmic Bioinformatics: Indexing, Compressing, and Comparing Heterogeneous Biological Data.” Department of Mathematics and Computer Science, University of Ferrara, Ferrara, Italy, November 18, 2015.

“Index-based Map-to-Sequence Alignment in Large Eukaryotic Genomes.” RECOMB-Seq 2015, Warsaw, Poland, April 11, 2015.

“Global and Overlap Landmark Map Alignment with Applications to Genomics, Geo Systems, and Computer Vision.” ETPL, A\*STAR, Biopolis science park, Singapore, February 9, 2015.

“Efficient Genome Map Alignment for Super-Scaffolding of Human Cancer and Polyploid Genomes: Opportunities and Challenges with High Performance Computing.” A\*CRC, A\*STAR, Fusionopolis science park, Singapore, December 12, 2014.

“OPTIMA: Technology Disclosure.” A\*STAR GIS, Biopolis science park, Singapore, December 4, 2014.

“A Step Towards Cost-effective *De Novo* Complex and Cancer Genome Reconstruction with Single Molecule Maps.” GIS Research Update, A\*STAR, Biopolis science park, Singapore, November 12, 2014.

“Optical Mapping of Long DNA Molecules: An Orthogonal Technology to High-throughput Sequencing.” GIS Technology Update, A\*STAR, Biopolis science park, Singapore, December 16, 2013.

“Whole-Genome Cancer Analysis through Single Molecule Optical Maps.” GIS Research Update, A\*STAR, Biopolis science park, Singapore, November 13, 2013.

“Computational Methods for Whole-Genome and Protein Sequence Comparison.” Lawrence Berkeley National Lab / JGI, US Department of Energy (DOE), Walnut Creek, CA – USA, August 6, 2012.

“From Whole-Genome Comparison to the Computation of a *Genomic Distance*.” A\*STAR GIS, Biopolis science park, Singapore, July 19, 2012.

“Biological Sequence Analysis.” The European Bioinformatics Institute (EBI), EMBL, Wellcome Trust Genome Campus, Hinxton, UK, April 18, 2012.

“Advanced Computational Methods for Massive Biological Sequence Analysis” – Ph.D. Thesis Defense. Department of Information Engineering, University of Padova, Italy, April 13, 2012.

“Nucleosome Positioning III: Spatio-temporal Integrated Analysis of Nucleosome Positioning in the Epigenome of the Human Malaria Parasite.” Institute for Integrative Genome Biology, University of California, Riverside, CA – USA, October 26, 2010.

“Nucleosome Positioning II: Sequence Preferences for Nucleosome Positioning in the Human Malaria Parasite.” Institute for Integrative Genome Biology, University of California, Riverside, CA – USA, June 25, 2010.

“Nucleosome Positioning I: Motif Discovery for Nucleosome Positioning.” Institute for Integrative Genome Biology, University of California, Riverside, CA – USA, June 17, 2010.

“On the Discovery and Application of Irredundant Common Patterns with Don’t Cares.” Third International School and Workshop on The Analysis of Patterns, Pula, Cagliari, Italy, September 30, 2009.

#### Other Conferences and Workshops:

“Twenty-Second Annual International Conference on Information Integration and Web-based Applications & Services (iiWAS 2020),” virtual conference (2020); special invitation from the steering committee.

“Twenty-Fourth Annual International Conference on Research in Computational Molecular Biology (RECOMB 2020),” virtual conference (2020).

ISCB-BITS Sixth Annual Meeting and Workshop “Bioinformatiha 6 – Tuscany Bioinformatics and Systems Biology Days”, Computing Museum, Cittadella Galileiana of Pisa, and Dept. of Computer Science, University of Pisa. (2017)

“Centre for Big Data and Integrative Genomics (c-BIG) Symposium 2016,” Matrix, Biopolis science park, Singapore (2016).

(Admitted to the prestigious) “Computational Genomics Summer Institute (CGSI) 2016,” University of California, Los Angeles (USA).

“Supercomputing Frontiers:” An international conference on supercomputing, exascale and beyond in Singapore and Asia, A\*ARC, Biopolis science park, Singapore (2016).

“A\*STAR GIS Early Career Researcher Retreat,” Bintan Lagoon Resort, Bintan, Indonesia (2016).

“Cell Symposium: Human Genomics,” Biopolis science park, Singapore, main speakers: Prof. Feng Zhang (Broad Institute, MIT), Prof. Rick Young (MIT, Whitehead Institute), Dr. Jun Wang (Founder, BGI), Prof. Pier Paolo Pandolfi (Director BIDMC, Harvard Medical Institute), Dr. Matthias Hentze (Director, EMBL), Dr. Jan Korbel (EMBL) (2015).

“Eighth Distinguished Technopreneur Speaker Forum,” ETPL, Biopolis science park, Singapore, main speaker: Prof. Sir Tom Blundell, FRS, FMedSci, Director of Research and Professor Emeritus Department of Biochemistry at Cambridge University; “Where Science and Industry Engage: Knowledge Exchange in Research Ecosystem” (2015).

“Nineteenth Annual International Conference on Research in Computational Molecular Biology (RECOMB 2015),” Warsaw, Poland, among the keynote speakers: Nobel laureate Prof. Michael Levitt, Prof. Bonnie Berger, Prof. Waclaw Szybalski (2015).

“Fifth RECOMB Annual Workshop on Massively Parallel Sequencing (RECOMB-Seq 2015),” speaker (regular talk), Warsaw, Poland (2015).

“Fourth RECOMB Workshop on Computational Cancer Biology (RECOMB-CCB 2015),” Warsaw, Poland (2015).

“Supercomputing Frontiers:” An international conference on supercomputing, exascale and beyond in Singapore and Asia, A\*ARC, Biopolis science park, Singapore (2015).

“Seventh Distinguished Technopreneur Speaker Forum,” ETPL, Biopolis science park, Singapore, main speaker: Dr. Stephen W. Turner, Founder and CTO of Pacific Biosciences, “Harnessing Fire for Singapore’s Future” (2014).

“A\*STAR GIS Early Career Researcher Retreat,” Nirwana Resort Hotel, Bintan, Indonesia (2014).

“Fourth Next-Generation Sequencing Seminar: Cancer Clinical Diagnostic—Challenges and Opportunities,” Biopolis science park, Singapore (2013).

“GYSS@one-north Global Young Scientists Summit:” Advancing science, creating technologies for a better world, National University of Singapore, keynote speaker: Prof. Richard M. Karp (2013).

“Asia Bioforum,” Biopolis science park, Singapore (2012).

“First IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS 2011),” Orlando, FL, USA, keynote speakers: Prof. Andrea Califano, Dr. Christina Leslie, Prof. John H. Reif (2011).

“GUI-based exploration and visualization of next-generation sequencing data – Special seminars.” Institute for Integrative Genome Biology, University of California, Riverside (2010), main speakers: Girke, T., Backman, T., and Sun, R.

“Illumina next-generation sequencing – Special seminars.” Institute for Integrative Genome Biology, University of California, Riverside (2010), main speakers: Baker, S., Backman, T., *et al.*

“Third International School and Workshop on The Analysis of Patterns,” Pula, Cagliari, Italy, keynote speakers: Prof. Nello Cristianini, Prof. Fabio Roli, Dr. Jean-Philippe Vert, Prof. John Shawe-Taylor, Prof. Bart Goethals. (2009).

Editor of:

*Algorithms* (MDPI), Topic Editor (permanent, since 2020).

*Algorithms* (MDPI), Special Issue on “Biological Knowledge Discovery from Big Data” (Guest Editor, 2020).

General Chair:

2021 – Thirty-Second International Conference on Database and Expert Systems Applications, International Workshop on Biological Knowledge Discovery from Big Data (co-Chair DEXA-BIOKDD 2021).

Program Committee Chair:

2021 – Thirty-Second International Conference on Database and Expert Systems Applications, BIOKDD, Springer CCIS Proceedings (PC Chair DEXA-BIOKDD 2021).

Program Committees:

2021 – Thirty-Second International Conference on Database and Expert Systems Applications (DEXA 2021), BIOKDD, Springer CCIS Proceedings.

2020 – Thirty-First International Conference on Database and Expert Systems Applications (DEXA 2020), BIOKDD, Springer CCIS Proceedings.

2019 – Thirtieth International Conference on Database and Expert Systems Applications (DEXA 2019), BIOKDD, Springer CCIS Proceedings.

2018 – Twenty-Ninth International Conference on Database and Expert Systems Applications (DEXA 2018), BIOKDD, IEEE Computer Society Proceedings.

2017 – Twenty-Eighth International Conference on Database and Expert Systems Applications (DEXA 2017), BIOKDD, IEEE Computer Society Proceedings.

2016 – Twenty-Seventh International Conference on Database and Expert Systems Applications (DEXA 2016), BIOKDD, IEEE Computer Society Proceedings.

2015 – Twenty-Sixth International Conference on Database and Expert Systems Applications (DEXA 2015), BIOKDD, IEEE Computer Society Proceedings.

Reviewer for:

*Algorithms* (MDPI)

*Algorithms for Molecular Biology* (BMC)

*BioData Mining* (BMC)

*Bioinformatics* (Oxford Journals, in collaboration with ISCB)

*BMC Bioinformatics* (BMC)

*Briefings in Bioinformatics* (Oxford Journals)  
*Briefings in Functional Genomics* (Oxford Journals)  
*Frontiers in Bioengineering and Biotechnology* (Frontiers Media)  
*Fundamenta Informaticae* (IOS, in collaboration with EATCS)  
*Informatica* (Slovenian Society Informatika)  
*International Journal of Foundations of Computer Science* (World Scientific, Singapore)  
*Journal of Computational Biology* (Liebert, in collaboration with EATCS)  
*PLOS Computational Biology* (PLOS Journals, in collaboration with ISCB)  
*Scientific Reports* (Nature, IF: 5.2)  
*Theoretical Computer Science* (Elsevier, in collaboration with EATCS).

CPM	Annual Symposium on Combinatorial Pattern Matching
DEXA	IEEE International Conference on Database and Expert Systems Applications; International Workshop on Biological Knowledge Discovery from Big Data (BIOKDD)
ICCABS	IEEE International Conference on Computational Advances in Bio and medical Sciences
ICDM	IEEE International Conference on Data Mining
ISBRA	International Symposium on Bioinformatics Research and Applications
KDD	ACM SIGKDD Conference on Knowledge Discovery and Data Mining
MATBIO	Mathematical Foundations in Bioinformatics
RECOMB	Annual International Conference on Research in Computational Molecular Biology
RECOMB-Seq	RECOMB Annual Workshop on Massively Parallel Sequencing
SPIRE	International Symposium on String Processing and Information Retrieval.

Member of:

ACM SIGBIO, Special Interest Group on Bioinformatics, Computational Biology, and Biomedical Informatics.  
 GII, Italian Computer Engineering Group ("Gruppo di Ingegneria Informatica").  
 GRIN, Italian Computer Science Group ("Gruppo di Informatica").

## References

**Matteo Comin**, Ph.D.

Associate Professor

*Computer Science and Engineering*

Department of Information Engineering

**University of Padova**, Italy

Telephone: (+39) 049 8277935

Fax: (+39) 049 8277799

Email address: [comin@dei.unipd.it](mailto:comin@dei.unipd.it)

Postal address: Via G. Gradenigo, 6/b, 35131 Padua, Italy

Relationship: Ph.D. Advisor.

**Francesco Marcelloni**, Ph.D.

Full Professor, Vice-Rector for International Cooperation and Relations

*Computer Science and Engineering*

Department of Information Engineering **University of Pisa**, Italy

Telephone: (+39) 050 2217678

Fax: (+39) 050 2217600

Email address: [francesco.marcelloni@unipi.it](mailto:francesco.marcelloni@unipi.it)

Postal address: Largo L. Lazzarino, 1, 56122 Pisa, Italy

Relationship: Collaborator and Main Reference for Computational Intelligence (teaching and research), and ERASMUS+ Programmes Manager.

**Mourad Elloumi**, Ph.D.

Full Professor and Group Head

*Computer Science and Engineering*

BioInformatics Group (BIG), LaTICE, UTIC

**University of Tunis** and **University of Tunis El Manar**, Tunisia

Telephone: (+216) 7176 1579

Fax: (+216) 7139 1166

Email address: [mourad.elloumi@gmail.com](mailto:mourad.elloumi@gmail.com)

Postal address: Bloc Nesrine, 1, El Aouina, 2045 Tunis, Tunisia

Relationship: Major Collaborator.

**Niranjan Nagarajan, Ph.D.**

Associate Director and Senior Group Leader

Adjunct Associate Professor (National University of Singapore)

*Computational and Systems Biology*

**A\*STAR Genome Institute of Singapore, Singapore**

Telephone: (+65) 6808 8071

Fax: (+65) 6808 8292

Email address: [nagarajann@gis.a-star.edu.sg](mailto:nagarajann@gis.a-star.edu.sg)

Postal address: 60 Biopolis Street, #02-01, Singapore 138672, Singapore

Relationship: Postdoctoral Mentor.

**Giovanna Rosone, Ph.D.**

Associate Professor

*Computer Science*

Department of Computer Science

**University of Pisa, Italy**

Telephone: (+39) 050 2212703

Fax: (+39) 050 2212726

Email address: [giovanna.rosone@unipi.it](mailto:giovanna.rosone@unipi.it)

Postal address: Via Largo B. Pontecorvo, 3, 56127 Pisa, Italy

Relationship: Postdoctoral Mentor.

**Axel M. Hillmer, Ph.D.**

University Professor, Group Leader and AG Head

*Genetics, Cancer Genomics*

Institute of Pathology

**University Hospital Cologne, Germany**

Telephone: (+49) 221 478 85643

Fax: (+49) 221 478 6360

Email address: [ahillmer@uni-koeln.de](mailto:ahillmer@uni-koeln.de)

Postal address: Kerpener Str. 62, 50937 Cologne, Germany

Relationship: Co-Postdoctoral Mentor and Collaborator.

Pisa, November 1, 2021.

Davide Verzotto, Ph.D.

[www.AlboPretorionline.it](http://www.AlboPretorionline.it)