Allegato A – Verbale n. 2 del 04.02.2022

Elenco numerato pubblicazioni presentate dai candidati

Candidato: Cristoforo DEMARTINO

Tesi di Dottorato

Demartino C. (2014) Aerodynamics and aeroelastic behaviour of ice-accretedbridge cables. Ph.D. thesis. University of Naples Federico II.

Pubblicazioni

1. Demartino C., Koss H.H., Georgakis C.T., Ricciardelli F. (2015). "Effects of ice accretion on the aerodynamics of bridge cables". Journal of Wind Engineering and Industrial Aerodynamics. Volume 138, 98-119.
2. Demartino C., Ricciardelli F. (2015). "Aerodynamic stability of ice-accreted bridge cables". Journal of Fluids and Structures, 52, 81-100.
3. Ricciardelli F., Demartino C. (2016). "Design of footbridges towards pedestrian-induced vibrations". Journal of Bridge Engineering. C4015003, 1-13.
4. Xu J.J., Chen Z.P., Xiao Y., Demartino C., and Wang J.H. (2017). "Recycled Aggregate Concrete in FRP- confined columns: A review of experimental results". Composite Structures, 174, 277-291.
5. Demartino C, Ricciardelli F. (2017). "Aerodynamics of nominally circular cylinders: a review of experimental results". Engineering Structures, volume 137, 76–114. (Corresponding author).
6. Demartino C., Wu J.G, Xiao Y. (2017). "Response of shear-deficient reinforced circular RC columns under lateral impact loading". International Journal of ImpactEngineering 109, 196-213. (Corresponding author).
7. Demartino C., Vanzi I., Monti G., and Sulpizio C. (2018). "Precast industrial buildings in Southern Europe: loss of support at frictional beam-to-column connections under seismic actions". Bulletin of Earthquake Engineering, 16(1), 259-294.
8. Xiong B., Demartino C., Xiao Y. (2019). "High-strain rate compressive behavior ofCFRP confined concrete: Large diameter SHPB tests". Construction and Building Materials, 201, 484-501.
9. Briseghella B., Demartino C., Fiore A., Nuti C., Sulpizio C., Vanzi I., Lavorato D., Fiorentino G. (2019). "Preliminary data and field observations of the 21st August 2017 Ischia earthquake". Bulletin of Earthquake Engineering, 17:1221–1256.
10. Marmo F., Demartino C., Candela G., Sulpizio C., Briseghella B., Spagnuolo R., Xiao Y., Vanzi I., Rosati L. (2019). "On the form of the Musmeci's bridge over theBasento river". Engineering Structures, 191, 658-673.
11. Demartino C., and Ricciardelli F. (2019). "Probabilistic versus Deterministic Assessment of the Minimum Structural Damping Required to Prevent Galloping of Dry Bridge Hangers". Journal of Structural Engineering, 145(8), 04019078.
12. Zhou, S. C., Demartino, C., Xu, J. J., & Xiao, Y. (2021). Effectiveness of CFRP seismic-retrofit of circular RC bridge piers under vehicular lateral impact loading. Engineering Structures, 243, 112602.

Candidato: Marco Filippo FERROTTO

Tesi di Dottorato

Ferrotto, M.F. (2018). Compressive response of concrete columns under service conditions strengthened by confining devices: from the local to the global behavior. XXX Ciclo, Università di Palermo.

Pubblicazioni

1. Ferrotto, M.F., Cavaleri, L. (2021). Masonry structures: A proposal of analytical generation of fragility functions for tsunami impact – Application to the Mediterranean coasts. Engineering Structures, 242, 112463. https://doi.org/10.1016/j.engstruct.2021.112463.
2. Ferrotto, M.F., Di Paola, M., Cavaleri, L. (2021). Seismic behavior of structures equipped with variable friction dissipative (VFD) systems. Bull Earthquake Eng. https://doi.org/10.1007/s10518-021-01116-x.
3. Ferrotto, M.F., Asteris, P.G., Cavaleri, L. (2020) Strategies of Identification of a Base-Isolated Hospital Building by Coupled Quasi-Static and Snap-Back Tests, Journal of Earthquake Engineering, DOI: 10.1080/13632469.2020.1824877;
4. Cavaleri, L. Di Paola, M., Ferrotto, M.F., Valenza, A (2019). Structural performances of pultruded GFRP emergency structures – Part 2: Full-scale experimental testing, Composite Structures, Volume 214, Pages 304-315.
5. Di Trapani, F. Bertagnoli, G., Ferrotto, M.F., Gino, D. (2018). Empirical Equations for the Direct Definition of Stress–Strain Laws for Fiber-Section-Based Macromodeling of Infilled Frames, Journal of Engineering Mechanics ASCE 2018. DOI: 10.1061/(ASCE) EM.1943-7889.0001532.
6. Ferrotto, M.F., Cavaleri, L., Di Trapani, F. (2018). FE modeling of Partially Steel-Jacketed (PSJ) RC columns using CDP model, Computers and Concrete, 22 (2), 143-152.
7. Ferrotto, M.F., Fischer, O., Cavaleri, L. (2018) A strategy for the finite element modeling of FRP-confined concrete columns subjected to preload, Engineering Structures, 173, 1054-1067.
8. Ferrotto, M.F., Cavaleri, L., Papia, M. (2018). Compressive response of substandard steel jacketed RC columns strengthened under sustained loads: from the local to the global behavior. Construction and Building Materials, 179, 500-511.
9. Ferrotto M.F., Fischer, O., Cavaleri, L. (2018). Analysis-oriented stress–strain model of CRFP-confined circular concrete columns with applied preload, Mater. Struct. 51:44. https://doi.org/10.1617/s11527-018-1169-0.
10. Campione, G., Cavaleri, L., Di Trapani, F., Ferrotto, M.F. (2017), Frictional effects on structural behavior of no-end-connected steel-jacketed RC columns: Experimental results and new approaches to model numerical and analytical response, J. Struct. Eng. ASCE 143 (2017) 04017070. DOI: 10.1061/(ASCE)ST.1943-541X.0001796.
11. Ferrotto, M.F., Fischer, O., Niedermeier, R. (2017). Experimental Investigation on the Compressive Behavior of Short Term Preloaded CFRP-Confined Concrete Columns, Struct. Concr. 1-14. DOI:10.1002/suco.201700072.
12. Cavaleri, L., Di Trapani, F. Ferrotto, M.F. (2017). A new hybrid procedure for the definition of seismic vulnerability in Mediterranean cross-border urban areas. Nat Hazards 86, 517–541. https://doi.org/10.1007/s11069-016-2646-9.

Candidato: Giovanni RINALDIN

Tesi di Dottorato

Rinaldin G. (2012) Modellazione e analisi non lineare di edifici in muratura e in legno", XXV ciclo, Università degli Studi di Trieste.

Pubblicazioni

1. Rinaldin G., Amadio C., Fragiacomo M. (2013) A Component approach for the hysteretic behaviour of connections in cross-laminated wooden structures, Earthquake Engineering and Structural Dynamics, 42:2023-2042. DOI: 10.1002/eqe.2310
2. Rinaldin G., Fragiacomo M. Non-linear simulation of shaking-table tests on 3- and 7-storey X-Lam timber buildings. Engineering Structures, 113 (2016) 133-148, DOI: 10.1016/j.engstruct.2016.01.055
3. Amadio C, Rinaldin G, Fragiacomo G. Investigation on the accuracy of the N2 method and the equivalent linearization procedure for different hysteretic models, Soil Dynamics and Earthquake Engineering (2016), 83:69-80, DOI: 10.1016/j.soildyn.2016.01.005
4. Rinaldin G., Amadio C., Macorini L. A macro-model with nonlinear springs for seismic analysis of URM buildings. Earthquake Engng Struct. Dyn. (2016) 45 no.14: 2261-2281. DOI: 10.1002/eqe.2759
5. Rinaldin G, Amadio C, Gattesco N. Review of experimental cyclic tests on unreinforced and strengthened masonry spandrels and numerical modelling of their cyclic behaviour, Engineering Structures 132 (2017) 609–623, DOI: 10.1016/j.engstruct.2016.11.063
6. van Bakel R, Rinaldin G, Leijten AJM, Fragiacomo M. Experimental-numerical investigation on the seismic behavior of moment-resisting timber frames with densified veneer wood-reinforced timber joints and expanded tube fasteners, Earthquake Engng Struct. Dyn. (2017), DOI: 10.1002/eqe.2857
7. Rinaldin G, Amadio C, Fragiacomo M. Effects of seismic sequences on structures with hysteretic or damped dissipative behaviour, Soil Dynamics and Earthquake Engineering, 97 (2017) 205–215, DOI: 10.1016/j.soildyn.2017.03.023
8. Rinaldin G, Amadio C. Effects of seismic sequences on masonry structures. Engineering Structures, 166:227-239, 2018, doi.org/10.1016/j.engstruct.2018.03.092
9. Izzi M, Rinaldin G, Polastri A, Fragiacomo M. Hysteresis model for timber joints with dowel-type fasteners. Engineering Structures (2018) 170-178, doi.org/10.1016/j.engstruct.2017.12.011
10. Bedon C, Rinaldin G, Fragiacomo F, Noè S. q-factor estimation for 3D log-house timber buildings via Finite Element analyses, Soil Dynamics and Earthquake Engineering, 116 (2019) 215-229, DOI: https://doi.org/10.1016/j.soildyn.2018.09.040
11. Rinaldin G, Miniussi C, Amadio C. Cyclic behavior of masonry walls strengthened by tie rods, Engineering Structures 184 (2019) 287–300, https://doi.org/10.1016/j.engstruct.2019.01.103
12. Rinaldin G, Fasan M, Noé S, Amadio C. The influence of earthquake vertical component on the seismic response of masonry structures, Engineering Structures 185 (2019) 184-193, https://doi.org/10.1016/j.engstruct.2019.01.138

CRISTOFORO DEMARTINO
Curriculum Vitae

Part I – General Information

Full Name	Cristoforo Demartino
Date of Birth	
Place of Birth	
Citizenship	
Permanent Address	
Mobile Phone Number	
E-mail	
Spoken Languages	Italian (Native) and English (Fluent)

Part II – Education

2011-2014 Ph.D., University of Naples "Federico II" - Department of Structures for Engineering and Architecture, Thesis: "Aerodynamics and aeroelastic behaviour of ice- accreted bridge cables" (Supervisors: prof. Mario Pasquino and prof. Francesco Ricciardelli). Final rating: very good.

9/2012-3/2013 Climatic wind tunnel experimental test, Technical University of Denmark – DTU, Copenaghen, Denmark. Realisation of a set-up for the evaluation of the aerodynamic characteristics of ice accreted bridge cables and execution of wind tunnel tests in iced conditions.

1/2012-2/2012 Visiting Scholar, Technical University of Denmark – DTU Copenaghen, Denmark: Course "Introduction to Wind Tunnel Testing in Civil Engineering".

2011-2012 2nd level University Master degree, Department of Structural and Geotechnical Engineering – Sapienza University of Rome, Italy. Thesis: "Valutazione delle perdite economiche derivanti da eventi sismici per edifici industriali monopiano" (Evaluation of the seismic economic losses of precast concrete industrial buildings) (Supervisor: prof. Giorgio Monti). Rating: 110 cum laude (maximum score).

2008-2010 Ms.C. in Civil Engineering (class LM-23 of D.M. 270/2004), University Mediterranea of Reggio Calabria, College of Engineering. Thesis: "Comportamento non locale di solidi elasto-plastici unidimensionali". (Non local behaviour of unidimensional elasto-plastic solids). (Supervisor: prof. Adolfo Santini). Rating: 110 cum laude (maximum score).

2005-2008 Bs.C. in Civil Engineering (class 8 of D.M. 509/1999), University Mediterranea of Reggio Calabria, College of Engineering. Thesis: "La valutazione delle caratteristiche meccaniche del calcestruzzo in opera". (In situ evaluation of the mechanical characteristics of the concrete). (Supervisor: prof. Adolfo Santini). Rating: 110 cum laude (maximum score).

2000–2005 High school, Liceo Scientifico U. Zanotti Bianco, Gioiosa Jonica, Italy.

Part III – Appointments

IIIA – Academic Appointments

2019-today Assistant Professor (Tenure Truck), Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Zhejiang University, Haining, China.

2020-today Adjunct Assistant Professor, University of Illinois at Urbana-Champaign (UIUC), Urbana-Champaign, Illinois, U.S.

2017-today Association at Institute of Atmospheric Sciences and Climate (Istituto di Scienze dell'Atmosfera e del Clima) (ISAC) of the Italian Research Council (Centro Nazionale delle Ricerche - CNR).

2016-2018 Post Doc, College of Civil Engineering, Nanjing Tech University, Nanjing, China (Supervisors: prof. Yan Xiao and prof. Sashi Kunnath).

2015-2016 Post Doc, Department of Structural Engineering – Sapienza University of Rome, Italy (Supervisor: prof. Giorgio Monti).

10/2014-11/2014 Assistant researcher at Technical University of Denmark – DTU, Copenaghen, Denmark. Realization of a set-up for the evaluation of the aerodynamic characteristics of bridge cables and execution of wind tunnel tests in dry conditions.

IIIB – Other Appointments (Consultant activities of relevant scientific level)

1. Consulting activity together with prof. Christos Georgakis (Aahrus University, Denmark) for the study "Probabilistic evaluation of the damping required to prevent iced cable galloping on the Gordie Howe International Bridge". The study concerned the probabilistic analysis of the vibratory phenomena of the cables of a cable-stayed bridge of great span under different climatic conditions. The bridge under study will have the longest main span of any cable-stayed bridge in North America, 853 meters. Companies involved: AECOM. 2019-2020.

2. Consulting activity together with prof. Christos Georgakis (Aahrus University, Denmark) for a study "Evaluation of the duration of the climatic conditions associated with ice accumulation on the of the Gordie Howe International Bridge". Companies involved: DYWIDAG. 2019-2020.

3. Consulting activity together with prof. Christos Georgakis (Aahrus University, Denmark) for a study "Estimation of iced cable limit-cycle galloping amplitudes on the Gordie Howe International Bridge". Companies involved: DYWIDAG. 2020-2021.

4. Court appointed expert witness by the court of Lagonegro (Italy) for the lawsuit on the detachment of the roof of the Lauria sports hall. Committee: prof. Luciano Rosati; Eng. Giuseppe Giannattasio; Prof. Cristoforo Demartino. 2020-2021.

5. Consulting activity together with prof. Christos Georgakis (Aahrus University, Denmark) for a study "Predictive environmental modelling for the Gordie Howe International Bridge". Companies involved: DYWIDAG & AECOM. 2021-2022.

Part IV – Teaching experience

IVA – Teaching

2020-2022 Professor of the course CEE465: Design of Structural Systems at Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

2020-2022 Professor of the course CEE360: Structural Engineering at Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

2020-2022 Professor of the course CEE592: Sustainable Urban Systems at Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

Feb 2020 – Jul 2020 Visiting scholar at the University of Illinois at Urbana Champaign (UIUC), USA. Attender of the Collins Scholar program at the Academy for Excellence in Engineering and Education.

2019-2022 Professor of the course ENG 100: Introduction to Engineering at Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

2020-2021 Organizer and teacher of the PhD course "Fire and Blast in RC Structures", Università di Napoli "Federico II":

- First edition: July 13-16, 2020.
- Second edition: July 14-15, 2021.

2016-2021 Organizer and teacher of the international course "Seismic Analysis of RC Structures using OpenSees - Finite Element theoretical framework and Civil Engineering applications" at different universities between China and Italy:

- First edition: February 18, 2016 – Roma Tre University, Italy. May 20, 2016 – Nanjing Tech University, China.
- Second edition: February 17, 2017 – Roma Tre University, Italy. July 3-4, 2017 – Fuzhou University, China. July 6-7, 2017 – Nanjing Tech University, China.
- Third edition: March 20, 2018 – University of Naples Federico II, Italy. March 27, 2018 – Roma Tre University, Italy.
- Fourth edition: March 10, 17, 2019 and April 29, 2019 – Fuzhou University, China. March 27 to 29, 2019 – Sapienza University of Rome, Italy.
- Fifth edition: January 20 to 22, 2020 – Politecnico di Torino, Italy.
- Sixth edition: July 19 to 22, 2021 – University of Palermo, Italy.

2016-2018 Adjunct Professor of the course of "Fluid Mechanics" at the College of Civil Engineering, Nanjing Tech University, Nanjing, China.

2015 Adjunct Professor of the course of "Statica delle Costruzioni" (Foundamental of RC structures) at Second University of Napoli (Italy).

2015 Teaching assistant of the course of "Tecnica delle Costruzioni" (Foundamental of RC structures) at Second University of Napoli (Italy) with Prof. Francesco Ricciardelli.

2015 Teaching assistant of the course of "Fondamenti di Scienza delle Costruzioni" (Structural Mechanics) at University of Naples Federico II (Italy) with Prof. Federico Guarracino.

2011-2015 Teaching assistant of the course of “Scienza delle Costruzioni” (Structural Mechanics) University of Naples Federico II (Italy) with Prof. Luciano Rosati.

2011-2015 Teaching assistant of the course of “Scienza delle Costruzioni” (Structural Mechanics) University of Naples Federico II (Italy) with Prof. Mario Pasquino.

2011-2014 Teaching assistant of the course of “Tecnica delle Costruzioni” (Foundamental of RC structures) at University Mediterranea of Reggio Calabria (Italy) with Prof. Francesco Ricciardelli.

2013 Lecturer in 2nd level University Master degree at University Mediterranea of Reggio Calabria (Italy) at the Master Erasmus Mundus EMDiReB (European Master in Diagnosis and Repair of Buildings). Lectures on rehabilitation of steel and concrete structures.

2013 Teaching assistant at University of Naples Federico II under the supervising of the head of the college.

2012 Lecturer in 2nd level University Master degree at University Mediterranea of Reggio Calabria (Italy) at the Master Erasmus Mundus EMDiReB (European Master in Diagnosis and Repair of Buildings). Lectures on rehabilitation of steel and concrete structures.

2009 Student Teaching Assistant of Structural Engineering at University Mediterranea of Reggio Calabria (Italy).

IVB – Student supervision

Qualified as Ph.D. and Post Doc supervisor in China.

1. Supervisor of the Post Doc Xuguang Wu. Research topic: Digital twin for complex structural systems. 2021-2022. Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

2. Supervisor of the Ph.D. student Shi Da. Research topic: Advanced connection systems for engineered bio-based structural elements. 2021-2024. Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

3. Supervisor of the Ph.D. student Shi Da. Research topic: Advanced connection systems for engineered bio-based structural elements. 2021-2024. Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

4. Supervisor of the Ph.D. student Chenyu Zhou. Research topic: Digital twins of transportation infrastructure systems for monitoring and maintenance. 2019-2023. Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

5. Supervisor of the M.Sc. student Qiu Zhang. Research topic: Active bending shells based on bamboo strips. 2020-2022. Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China.

6. Supervisor of the M.Sc. student Jianghan Hu. Research topic: Computer vision techniques for traffic monitoring. 2021-2023. Zhejiang University / University of Illinois at Urbana Champaign Institute (ZJUI), Haining, China. Co-supervisor: prof. Simon Hu (ZJUI).

7. Co-Supervisor of the Master's Thesis at Politecnico di Torino. Thesis: "Sviluppo di sistemi reticolari spaziali ibridi acciaio-bambù: caratterizzazione sperimentale del comportamento delle connessioni" of Maria Minardi. Supervisor: Prof. Fabio di Trapani. 2020.

8. Co-Tutor of the Ph.D.'s Thesis at University Mediterranea of Reggio Calabria. Thesis: "UAV Geometrical survey for bridge structural analysis" of Gabriele Candela. Supervisor: Prof. Vincenzo Barrile and Prof. Alberto De Capua. 2019.

9. Co-Tutor of the Ph.D.'s Thesis at Nanjing Tech University. Thesis: "Structural performances of reinforced recycled aggregate concrete beams and columns" of Simret Tesfaye Deresa. Supervisor: Prof. Yan Xiao. 2020.

10. Co-Supervisor of the Master's Thesis at Nanjing Tech University. Thesis: "High-strain rate compressive behavior of engineered timber and bamboo materials using SHPB tests" of Sichen Zhou. Supervisor: Prof. Yan Xiao. 2020.

11. Co-Supervisor of the Master's Thesis at Nanjing Tech University. Thesis: "High-strain rate compressive behavior of CFRP confined concrete using large diameter SHPB tests" of BeiBei Xiong. Supervisor: Prof. Yan Xiao. 2019.

12. Co-Supervisor of Concetta Sulpizio Ph.D. student in "Terrestrial systems and built environments", XXXI cycle, 2015-2020 at the University of "G. d'Annunzio" of Chieti-Pescara, Italy. Coordinator of the PhD course: Prof. Isabella Raffi. Tutor: Prof. Ivo Vanzi. Co-Supervisor: Prof. Bruno Briseghella and Cristoforo Demartino.

13. Co-Supervisor of the Master's Thesis at Nanjing Tech University. Thesis: "Thermal performances of Bamboo shear walls" of Junsung Wang. Supervisor: Prof. Yan Xiao. 2018.

14. Co-Supervisor of the Master's Thesis at Hunan University. Thesis: "Dynamic performance research on reinforced concrete column under impact loading" of Jiguang Wu. Supervisor: Prof. Yan Xiao. 2017.

15. Co-Supervisor of the Master's Thesis at Second University of Napoli. Thesis: "Identificazione delle caratteristiche dinamiche di una trave in legno (Identification of the dynamic characteristics of a wood beam)" of Ottavio Della Peruta and Vincenzo Picozzi. Supervisor: Prof. Francesco Ricciardelli. 2015.

16. Co-Supervisor of the Master's Thesis: "Prediction and Simulation of Aerodynamic Instability of Iced Bridge Cable Section" of Mia Lund at DTU at Department of Civil Engineering. Supervisor Prof. Holger Koss. 2013.

Part V - Academic service, Society memberberships, Awards and Honors

VA – Awards

– Awarded by the ANIV (Italian Association of Wind Engineering) for the best paper written by a young researcher during his Ph.D. with an award of 3.000 €. The awarded paper is Demartino C., Koss H.H., Georgakis C.T, Ricciardelli F. (2015) "Effects of ice accretion on the aerodynamics of bridge cables" Journal of Wind Engineering and Industrial Aerodynamics. Volume 138, Pages 98-119.

- Italian qualification (Abilitazione Scientifica Nazionale) for Associate Professor in the sector 08/B3 (Structural engineering, Tecnica delle Costruzioni) since 20 September 2018.

- The paper “High-strain rate compressive tests on glubam: preliminary results” was awarded as highly commendable paper the during the 13th International Conference on Shock and Impact Loads on Structures (2019), Guangzhou, China.

- Third classified (2020) and second classified (2021) in the Junior Faculty Teaching Contest, Zhejiang University, Haining, China.

VB – Organisation of conferences, contests and workshops

- Coordinator of a student team for the structural design for the Solar Dechatlon, China. The team (Xi'an Jiaotong Liverpool University, Zhejiang University, Jefferson University) is awarded with 1,000,000 Yuan (140,000 Euro) to realise one house with zero emissions at Zhangjiakou of Hebei Province in 2021. The structural system of this house is made of engineered bamboo. This activity is related to the Winter Olympic Games in China in 2022.

- Chair of the Special session: “Earthquake Resistant Buildings Using Raw and Engineered Bamboo” at 17th World Conference on Earthquake Engineering, 17WCEE Sendai, Japan - September 27th to October 2nd 2021. (Speakers: Cristoforo Demartino; Yan Xiao; Zhi Li; Rodolfo Lorenzo; Luisa Molari).

- Member of the scientific committee of the International Conference on Advances in Construction Materials and Structures (ICCMS-2021), December 15-17, 2021.

- Member of the organising committee of three editions (2019, 2020 and 2021) of the “International Concrete Dragon Boat Competition” at Zhejiang University.

- Chair of the session “Risk assessment of bridges” at The 1st Conference of the European Association on Quality Control of Bridges and Structures – EUROSTRUCT2021, August 29 to September 1, 2021 at University of Padova, Italy.

- Organisation of the Special Session (SS20) – “Modelling and assessment of structures and infrastructures subject to extreme loading actions”. Organised by Fabio Di Trapani, Cristoforo Demartino, Mariano Angelo Zanini, Liborio Cavaleri, for The 1st Conference of the European Association on Quality Control of Bridges and Structures – EUROSTRUCT2021, August 29 to September 1, 2021 at University of Padova, Italy.

- Member of the scientific committee of the 7th International Conference on Environmental Science and Civil Engineering (ESCE2021), Nanchang, P.R. China from January 9th to 10th, 2021.

- Main organiser of the workshop “Sustainable Development of Civil Engineering”, 20 December, 2019, Zhejiang University-University of Illinois at Urbana Champaign Institute, Zhejiang University, Haining, Zhejiang.

- Member of the organising committee of "First Eurasian Conference on OpenSees", 20-21 June, 2019, Hong Kong.

- Member of the committee and organiser of the international student competition "The International Bamboo Construction Competition 2019" organised by the International Bamboo and Rattan Organisation (INBAR). The first three prizes are the realisation of a Bamboo Pavilion at the International Horticultural Exhibition 2019, Beijing, China. The award ceremony was held at International Horticultural Exhibition 2019 at Yanqing District, Beijing in China.

- Organisation of the mini-symposium SS09 – "Sviluppi nell'impiego di OpenSees per l'ingegneria sismica - Developments in using OpenSees for seismic engineering". Organised by Fabio Di Trapani, Paolo Castaldo, Cristoforo Demartino, Giuseppe Carlo Marano, Liborio Cavaleri for XVIII CONVEGNO ANIDIS L'ingegneria sismica in Italia. Ascoli Piceno, Italy, September 15-19 2019.

- Member of the committee and organiser of the international student competition "Competition BAMBOO #PAVILION for designing the Exhibition Pavilion" between the Mediterranean University of Reggio Calabria and Nanjing Tech University. The first prize is the realization of a Bamboo Pavilion at Nanjing Tech University and the participation in the "Village Bamboo 2018" summer school. The award ceremony was held at Zhejiang University/University of Illinois Institute at Haining in China.

- Chair of the session "Bridges" at XV Conference of the Italian Association for Wind Engineering, IN-VENTO-2018, 9-12 September 2018, Castel dell'Ovo, Naples, Italy.

- Member of the organising committee of "Sustainable Bamboo Building Materials Symposium of BARC 2018 and 3rd International Conference on Modern Bamboo Structure (ICBS-2018)", 25-27 June 2018, Beijing, China.

- Member of the organising committee of "International workshop on cyclic behavior of corroded rebars in RC structures", Roma Tre University, Rome, Italy, May 10, 2018.

- Member of the organising committee of "DIIS – Dynamic interaction of soil and structure", Rome (Italy), October 19-20, 2017.

- Member of the organising committee of "2nd International Symposium on Advances in Civil and infrastructure Engineering", Vietri sul Mare (Italy), June 12-13, 2015.

- Member of the organising committee of "OpenSees Days Italy 2015", Salerno (Italy), June 10-11, 2015.

VC – Editorial board member of the following journals

- International Journal of Structural Glass and Advanced Materials Research since 2019.
- Costruzioni Metalliche since 2019.
- Advances in Civil Engineering since 2020.
- Open Construction and Building Journal since 2020.
- International Journal of Structural Glass and Advanced Materials Research since 2020.

VD – Reviewer for the following international journals

1. Advances in Civil Engineering
2. Advances in Mechanical Engineering

3. Advances in Polymer Technology
4. Advances in Structural Engineering
5. ASCE - Journal of Aerospace Engineering
6. ASCE - Journal of Bridge Engineering
7. ASCE - Journal of Engineering Mechanics
8. ASCE - Journal of Structural Engineering
9. Bioresources
10. Bulletin of Earthquake Engineering
11. Canadian Journal of Civil Engineering
12. Case Studies in Construction Materials
13. Cogent Engineering
14. Cold Regions Science and Technology
15. Computers and Structures
16. Construction and Building Materials
17. Continuum Mechanics and Thermodynamics
18. Energy and Buildings
19. Engineering Structures
20. European Journal of Environmental and Civil Engineering
21. IABSE - Structural Engineering International
22. International Journal of Acoustics and Vibration
23. International Journal of Advanced Structural Engineering
24. International Journal of Structural Glass and Advanced Materials Research
25. International Journal of Structural Stability and Dynamics
26. Journal of Building Engineering
27. Journal of Fluids and Structures
28. Journal of Mechanical Engineering
29. Journal of Renewable Materials
30. Journal of Sound and Vibrations
31. Journal of Structural Fire Engineering
32. Journal of Traffic and Transportation Engineering (English Edition)
33. Journal of Wind Engineering and Industrial Aerodynamics
34. KSCE Journal of Civil Engineering
35. Materials
36. Materials and Design
37. Mathematical Problems in Engineering
38. Mechanical Systems and Signal Processing
39. Natural Hazards
40. Ocean Engineering
41. PLOS ONE
42. Proceedings of the Royal society A: Mathematical, physical and engineering sciences
43. Shock and Vibration
44. Soil Dynamics and Earthquake Engineering
45. Steel and Composite Structures
46. Structural Engineering and Mechanics, An International Journal
47. Structural Health Monitoring
48. Structure and Infrastructure Engineering
49. Structures
50. Structures and Buildings
51. Sustainable and Resilient Infrastructure
52. Wind and Structures

VE – Member of the following academic associations

- International Association for Wind Engineering (IAWE) since 2013.
- European Association for Structural Dynamics (EASD) since 2014.
- Italian Association of Wind Engineering (ANIV) since 2014.
- Italian Association of Reinforced and Prestressed Concrete (A.I.C.A.P.) since 2016.
- Euro Asian OpenSees Association (EOS) since 2017.
- European Association on Quality Control of Bridges and Structures (EUROSTRUCT) since 2021.
- Member of the International Students Application committee of the Zhejiang University / University of Illinois at Urbana Champaign Institute since 2019.
- Founder and member of ANIV-G that is the group of young researchers within ANIV (Italian Association of Wind Engineering) since 2019. Its goal is to promote cooperation in the Wind Engineering discipline, ease the exchange of ideas, support the spreading of knowledge and favour contamination with other scientific communities. The group is open to students, PhDs, researchers and practitioners who are interested in deepening their knowledge, sharing their experience and contributing to the development of Wind Engineering.
- Coordination of the group “Structures under Fire, Impact or Explosion” of the Italian Association of Reinforced and Prestressed Concrete (A.I.C.A.P.) with Flavio Stochino (University of Cagliari) since 2019.
- Member of the Professional Board of Engineers in Reggio Calabria, Italy (Junior since 2009 and Senior since 2011).

VF – Invited lectures

1. “Experimental and numerical analyzes of the impact behavior of CFST bridge piers: preliminary results “at the International Workshop New Trends in Structural Engineering (NTST16) at Fuzhou University (China), 18/7/2016.
2. “Deterministic and probabilistic assessment of the minimum structural damping required to prevent galloping of dry and wet bridge cables” at the College di Civil Engineering of Fuzhou University, (China), 2016/12/6.
3. “Use of Engineered Bamboo in Civil Engineering Application” at the University Mediterranea of Reggio Calabria (Italy), 2/23/2017.
4. “Thermal properties of lightweight Glubam and timber shear walls” at the International Workshop New Trends in Structural Engineering (NTST17) at Fuzhou University (China), 1/7/2017.
5. “Undesirable wind induced vibrations of cables with ice accretion” at the course “Design of wind-excited civil structures: phenomenological basis, performance assessment, solutions and case studies” at Sapienza University of Rome (Italy), 9/14/2017.
6. “Feasibility of energy harvesting from pedestrian-induced vibrations for structural health monitoring of footbridges” at the “Research Workshop: Smart/Eco Cities and Distributed Renewable Energy Systems in China and in the UK” at the Department of Architecture of the Xi'an Jiaotong-Liverpool University (China), 7/11/2018.
7. “RC bridge piers under lateral impact: material and structural behavior and retrofit strategies” at the College of Civil Engineering of the Suzhou University of Science and Technology (China), 7/12/2018.
8. “Material, structural behavior and retrofit strategies of columns under lateral impact” at University of Chieti - Pescara "G. d'Annunzio" (Italy), 24/10/2018.

9. “Bridges in transportation infrastructure systems: from multi-hazard to management” at Zhejiang University/University of Illinois at Urbana-Champaign (ZJU-UIUC) Institute (China), 11/12/2018.
10. “Bridges in transportation infrastructure systems: From multi-hazard to management” at Aarhus University (Denmark), 5/2/2019.
11. “Aeroelastic behavior of bridge cables: modeling, instability and uncertainties” at Aarhus University (Denmark), 6/2/2019.
12. “Use of Engineered Bamboo in Civil Engineering applications” at University of Bologna (Italy), 3/4/2019.
13. “Material, structural behavior and retrofit strategies of columns under lateral impact” at Politecnico di Torino (Italy), 17/5/2019.
14. “Impact loads on bridge column”at South China University of Technology (China), 3/7/2019.
15. “Wind engineering: my approach and reasons (?) for it” at Politecnico di Milano (Italy), 17/1/2020.
16. “Aeroelastic behavior of bridge cables: climatic conditions, Bridge Aerodynamics modeling, instability and uncertainties” at University of Illinois at Urbana-Champaign (USA), 29/2/2020.
17. “Unconventional actions on structures” at University of Illinois at Urbana-Champaign (USA), 6/4/2020.
18. “Bridges: from hazard to design and Assessment” at University of Illinois at Urbana-Champaign (USA), 6/4/2020.
19. “Energy harvesting from vertical pedestrian-induced vibrations of footbridges for smart monitoring applications” at Zhejiang University, 26/12/2020.
20. “Progettazione di elementi strutturali in calcestruzzo armato soggetti ad impatti ed esplosioni" (relatori: Cristoforo Demartino e Flavio Stochino). Seminari TECNIMONT organizzati da AICAP, 24/01/2021.
21. “Advancements of bamboo research at Zhejiang University: an overview” at University of Bologna, 25/09/2021.
22. “Material, structural behavior and retrofit strategies of columns under lateral impact” (Invited Keynote speaker) at International Conference on Advances in Construction Materials and Structures (ICCMS-2021), December 15-17, 2021.

Part VI - Funding Information

2019-2022 Participation to the project: “RELUIS - DPC – Territorial risk of reinforce concrete in seismic zones at Italian Civil Protection” at Sapienza University of Rome (300,000 €).

2019-2021 Participation to the project: “RELUIS - DPC – Mappe di rischio e scenari di danno sismico (Risk maps and seismic damage scenarios)” at Sapienza University of Rome from Italian Civil Protection.

2019-2022 Co-principal investigator of the project: “I-shaped CFRP-steel tube-concrete composite member with lateral impact resistance and design method”, at Nanjing Tech University (China). National Natural Science Foundation of China (51878419) (600,000 RMB).

2019-2022 Coordinator of the project: “Sustainable residential prefabricated bamboo structures”, at Zhejiang University/University of Illinois at Urbana-Champaign (ZJU-UIUC) Institute (China). National Research Project (2019YFD1101002) (6,530,000 RMB).

2020-2022 PI-principal of the project: “Probabilistic design and assessment of bridge cable systems under wind and climatic action”, at Zhejiang University/University of Illinois at Urbana-Champaign (ZJU-UIUC) Institute (China). National Natural Science Foundation of China - Research Fund for International Young Scientists (400,000 RMB).

2020-2025 Co-PI of the Infrastructure Trust of the CIRCLE (Center for Infrastructure Resilience in Cities as Livable Environments). Zhejiang University/University of Illinois at Urbana-Champaign Joint Research Center financed by Zhejiang University and University of Illinois at Urbana-Champaign (3,000,000 US$). PI: prof. Bill Spencer (UIUC) and Yan Xiao (ZJUI).

Part VII – Research Activities

1) Participation in the activities of the research group of the Mediterranean University of Reggio Calabria as part of the "Lab RENEW_MEL" project - Public private laboratory for the research and development of innovative systems and technologies for renewable energy, financed by funds PON "R&C" 2007-2013 (European Regional Development Fund - FERS and Rotation Fund - FDR), project PON03PE_000122 and PON03PE_00012 (call DM 2010/713), for an amount of € 10,250,384. Scientific managers: prof. Carmine Landi and prof. Francesco Ricciardelli. From 01-01-2011 to 2019. Main research product:
   - Avossa A.M., Demartino C., Ricciardelli F. (2016). A probabilistic framework to the design of HAWTs subjected to combined effect of wind and seismic actions: preliminary results. In: Proceeedings of IN-VENTO 2016 - XIV Conference of the Italiana Association for Wind Engineering, Terni, Italy, September 25-28.

2) Participation in the activities of the research group of the Mediterranean University of Reggio Calabria as part of the Structural Enhancement Project "GELMINCAL" Magnetic Levitation Wind Generator in Calabria, financed by the 2007-2013 PON "R&C" funds (European Fund of Regional Development - FESR and Rotation Fund - FDR) code PONa3_00308 (call DM 2011/254), carried out in collaboration between the University of Mediterranean Studies of Reggio Calabria and the Me.SE Interuniversity Consortium (Metrics and Measurement Technologies Electric Systems), funded for an amount of € 14,338,400. Scientific coordinator: Prof. Francesco Ricciardelli. From 01-01-2012 to 2019. Main research product:
   - Avossa A.M., Demartino C., Vardaroglu M., Ricciardelli F. (2018). Probabilistic assessment of the peak response of horizontal axis wind turbines to wind and seismic actions. In: Proceedings of Winercost’18, The International Conference on Wind Energy Harvesting, Catanzaro, March 21-23 2018.

3) Participation in the activities of the research group "CESDyn" (Civil Engineering Structural Dynamics) at "Department of Civil Engineering" of "Technical University of Denmark" within the funded project "Understanding and controlling wind-induced vibrations of bridge cables" from Femern A / S, Storebælt A / S and Force Technology. Scientific managers: prof. Christos T. Georgakis and prof. Holger H. Koss. From 02-11-2012 to today. Main research products:
   1. Demartino C., Koss H.H. and Ricciardelli F. Experimental study of the effect of icing on the aerodynamics of circular cylinders-Part I: Cross flow. 6th European and African Wind Engineering Conference. Cambridge, UK. 2013.
   2. Demartino C., Georgakis C.T., and Ricciardelli F. Experimental study of the effect of icing on the aerodynamics of circular cylinders-Part II: Inclined flow. 6th European and African Conference on Wind Engineering, Cambridge, UK. 2013.

3. Demartino C. and Ricciardelli F. Prediction of the buffeting response of ice-accreted stay cables. IN-VENTO 2014 XIII Conference of the Italian Association for Wind Engineering 22-25 June 2014, Genova, Italy.
4. Demartino C. and Ricciardelli F. (2015) "Aerodynamic stability of ice-accreted bridge cables", Journal of Fluids and Structures, Volume 52, Pages 81-100.
5. Demartino C., Koss H.H., Georgakis C.T. and Ricciardelli F. "Effects of ice accretion on the aerodynamics of bridge cables" Journal of Wind Engineering and Industrial Aerodynamics. Volume 138, 2015, Pages 98-119.
6. Demartino, C., Ricciardelli, F. (2018). Assessment of the Structural Damping Required to Prevent Galloping of Dry HDPE Stay Cables Using the Quasi-Steady Approach. Journal of Bridge Engineering, 23(4), 04018004.

4) Participation in the activities of the research group at Sapienza University in the research project "Seismic performance of Industrial Buildings". Scientific managers: prof. Giorgio Monti. From 02-11-2012 to today. Main research products:
   1. Demartino C., Monti G. and Vanzi I. (2015). "Seismic performance assessment of precast concrete industrial buildings: preliminary results". OpenSees Days Italy, 10-11 June 2015, University of Salerno.
   2. Demartino C., Monti G. and Vanzi I. (2016) "Effects of the disaggregation of seismic hazard on the loss of support". ACEM 2016, Jeju island, Korea, 28 August - 1 September, 2016.
   3. Demartino C., Monti G. and Vanzi I. (2017) "Seismic loss-of-support conditions of frictional beam-to-column connections" Structural Engineering and Mechanics. 2017. 61(4), 527-538.
   4. Demartino, C., Vanzi, I., Monti, G. (2017). Probabilistic estimation of seismic economic losses of portal-like precast industrial buildings. Earthquake and Structures, 13(4) 387-399.
   5. Demartino, C., Vanzi, I., Monti, G., & Sulpizio, C. (2018). Precast industrial buildings in Southern Europe: loss of support at frictional beam-to-column connections under seismic actions. Bulletin of Earthquake Engineering, 16(1), 259-294.
   6. Demartino, C., Monti, G. (2020) "Low-LOD code-driven identification of the high seismic risk areas for industrial buildings in Italy". Bulletin of Earthquake Engineering, 1-32. (Corresponding author).
   7. Software per la valutazione delle perdite economiche indotte da eventi sismici su edifici industriali prefabbricati monopiano in CA (2016): Economic Loss Estimator.

5) Participation in the scientific research project of the university (formerly 60%) carried out at the second University of Naples, entitled "Analysis of the structural response of pedestrian walkways towards human actions". Responsible prof. Francesco Ricciardelli. Year 2016. From 03-04-2016 to 2019. Main research products:
   1. Ricciardelli F., Demartino C. and Avossa A. "Aspetti controversi della verifica delle passerelle pedonali nei confronti delle azioni antropiche - Misconceptions of design procedures of footbridges subjected to pedestrian loads". XXV CONGRESSO C.T.A., Salerno 1-3 ottobre 2015.
   2. Ricciardelli F., Demartino C. and Avossa A. Verifica di passerelle pedonali nei confronti delle azioni antropiche: confronto tra approcci normativi - Design of footbridges against anthropic actions: a comparison between code procedures. Costruzioni Metalliche. ANNO LXVIII. SET-OTT 2016.
   3. Avossa A.M., Demartino C., Ricciardelli F. Probability distribution of footbridge peak acceleration to single and multiple crossing walkers. Procedia Engineering, 2017, 199: 2766-2771.

4. Avossa A.M., Demartino C. and Ricciardelli “Design procedures for footbridges subjected to walking loads: Comparison and remarks” The Baltic Journal of Road and Bridge Engineering. 2017.
5. Demartino, C., Avossa, A. M., & Ricciardelli, F. Deterministic and probabilistic serviceability assessment of footbridge vibrations due to a single walker crossing. Shock and Vibration, 2018.

6) Participation in the activities of the Nanjing Tech University research group within the project "Bridge failure mechanism and performance control under vessel and vehicle collision", funded by The National Nature Science Foundation of China (Project no: 51438010), (1,200,000 RMB, about € 200,000) Scientific coordinator: Prof. Yan Xiao. From 03-04-2016 to today. Main research products:
   1. Demartino, C., Wu, J.G. and Xiao, Y. "Response of shear-deficient reinforced circular RC columns under lateral impact loading." International Journal of Impact Engineering 109 (2017): 196-213.
   2. Xu J. J., Demartino C., Shan B., Heo Y. A., Xiao Y. (2020). “Experimental investigation on performance of cantilever CFRP-wrapped circular RC columns under lateral low-velocity impact”. Composite Structures, 112143.
   3. Wang X., Demartino C., Xu J.J., Xiao Y. Dynamic response of concrete filled steel tube column under lateral impact load: experimental study and calculation method. Tumu Gongcheng Xuebao/china Civil Engineering Journal, 2017, 50(12):28-36. (in Chinese).
   4. Demartino C., Xu J.J., Huang D. Xiao Y. Experimental study of the mechanical behavior of CFT columns under impact loading: preliminary results. 9th International Symposium on Steel Structures, November 1-4, 2017, Jeju, Korea.
   5. Demartino C., Wu J.G., Xiao Y. "Experimental and numerical study on the behavior of circular RC columns under impact loading." Procedia Engineering 199 (2017): 2457-2462.
   6. Demartino C., Xu J.J., Wu J.G., Wang X.Y., Ding J.C., Xiao Y. A comparison of the impact behavior of RC and CFT circular columns under lateral impact loading. Structural Engineering and Mechanics (ASEM17) 28 August - 1 September, 2017, Seoul, Korea.
   7. Wu J.G., Xiao Y., Demartino C. Impact behaviour of circular section RC cantilever columns. Structural Engineers (结构工程师), Accepted, 2017. (in Chinese).

7) Participation in the activities of the Nanjing Tech University research group within the projects "Bond failure mechanism and damage evaluation on recycled aggregate concrete-steel shape in steel and composite structures after high temperature", funded by The National Nature Science Foundation of China (Project no: 51438010), (1,200,000 RMB, about 200,000 €) and "Performance database and calculation method for renforced recycled aggregate concrete structures", funded by "Opening Project of Guangxi Key Laboratory of Disaster Prevention and Structural Safety (Project No: 2016ZDK003) (30,000 RMB, about 5,000 €). Scientific coordinator: prof. Jinjun Xu. From 01-09-2016 to today. Main research products:
   1. Xu, J. J., Chen, Z. P., Xiao, Y., Demartino, C., Wang, J. H. (2017). Recycled Aggregate Concrete in FRP-confined columns: A review of experimental results. Composite Structures, 174, 277-291.
   2. Xu, J. J., Chen, Z. P., Ozbakkaloglu, T., Zhao, X. Y., Demartino, C. (2018). A critical assessment of the compressive behavior of reinforced recycled aggregate concrete columns. Engineering Structures, 161, 161-175.
   3. Xu J.J., Chen Z.P., Zhao X.Y., Demartino C., Ozbakkaloglu T., Xue J.Y. (2019). “Seismic performance of circular recycled aggregate concrete-filled steel tubular

columns: FEM modelling and sensitivity analysis". Thin-Walled Structures, 141, 509-525.

8) Participation in the activities of the research group characterized by South China Agricultural University, Guanzhou, within the project "Use of bamboo in structures". Scientific coordinator: prof. Y.Y. There. From 01-11-2016 to 2019. The results of this activity have converged into the following scientific work:
   1. Wang, J.S., Demartino, C., Xiao, Y., & Li, Y.Y. (2018). Thermal insulation performance of bamboo-and wood-based shear walls in light-frame buildings. Energy and Buildings. 168. 167-169.

9) Participation in the activity of a research group of the La Sapienza University of Rome on the topic "Developing of a OpenSees based FEM model for the evaluation of the non-linear behavior of timber shear walls". Responsible prof. Giorgio Monti. From 01-11-2016 to today. Main research products:
   1. Di Gangi, G., Demartino, C., Quaranta, G., Vailati, M., Monti, G. (2018), Timber shear walls: numerical assessment of the equivalent viscous damping, in Proceedings of the 6th International Conference on Integrity-Reliability-Failure, Lisbon, Portugal, July 22nd-26th.
   2. Di Gangi, G., Demartino, C., Monti, G. (2017), Timber Shear Walls: Numerical Assessment of Damping of Sheathing-to-Framing Connections, Proceedings of the 1st European Conference on OpenSees, Volume: ISBN 978-972-752-221-7, Porto, Portugal, June 19th-20th.
   3. Di Gangi, G., Demartino, C., Quaranta, G., Vailati, M., Monti, G., Numerical assessment of the equivalent viscous damping of light-framed timber shear walls, in Structural Engineering and Mechanics.
   4. Di Gangi G., Demartino C., Quaranta G., and Monti G. (2020). "Dissipation in sheathing-to-framing connections of light-frame timber shear walls under seismic loads". Engineering Structures, 208, 110246. (Corresponding author).

10) Participation in the university scientific research project (formerly 60%) carried out at the second University of Naples, entitled "Multi-risk analysis of the support towers of wind generators due to the combined effect of wind and earthquake". Responsible prof. Francesco Ricciardelli. From 1/1/2017 to 2019. Main research products:
   1. Avossa A.M., Demartino C., Ricciardelli F. (2017). Peak response of HAWTs to wind and seismic actions. In EACWE 2017, Proceedings of 7th European-African Conference on Wind Engineering, Liège, Belgium, July 4-7.
   2. Avossa A.M., Demartino C., Contestabile P., Ricciardelli F., Vicinanza D. (2018). Some results on the vulnerability assessment of the HAWTs subjected to wind and seismic actions, Sustainability, vol.9 (9), 1525, doi:10.3390/su9091525.7

11) Participation in the activity of a research group of the University of L'Aquila on the theme "Timber - concrete composite bridges". Responsible prof. Massimiliano Fragiacomo. From 1-3-2017 to 2019. Main research product:
   1. Massimo Fragiacomo, Amedeo Gregori, Junqing Xue, Cristoforo Demartino, Matteo Toso, (2018) Timber-concrete composite brige. Journal of Traffic and Transportation Engineering (English Edition).

12) Participation in the activities of a research group on "Energy harvesting from pedestrian-induced vibrations of footbridges" - Universities involved: Nanjing Tech University (Cristoforo Demartino); "La Sapienza" University of Rome (Dr. Giuseppe Quaranta);

University of Salento (Dr. Claudio Maruccio). From 01-04-2017 to today. The results of this activity have converged into the following scientific work:

1. C. Demartino, C. Maruccio, G. Quaranta, (2018) Energy harvesting from vertical pedestrian-induced vibrations of footbridges. The 7th World Conference on Structural Control and Monitoring, 7WCSCM, July 22-25, 2018, Qingdao, China.

13) Participation in the activities of the research group of the Institute of Atmospheric Sciences and Climate (ISAC) of Lamezia Terme of the National Research Center (CNR) (Contact person: Dr. Claudia R. Calidonna) within the project ' PdG HOTSPOT - Observations and technological development for the study of climatic hot spots' funded by the CNR. From 26-06-2017 to today. Main research product:
    1. Demartino C., Avossa A.M., Ricciardelli F., Calidonna C.R. (2017). Wind profile identification using wind lidars: an application to the area of Lametia Terme. In EACWE 2017, Proceedings of 7th European-African Conference on Wind Engineering, Liège, Belgium, July 4-7.
    2. Zhu X., Wang S., Gullì D., Calidonna C.R., Butala M., and Demartino C. "Unsupervised Wind Profile Classification: Preliminary Results". ACEM20 The 2020 World Congress on Advances in Civil, Environmental, and Materials Research. GECE, Seoul, Korea, 26-28 August 2020.

14) Participation in the activities of a research group within the project 'Analysis of the shape and structure of the Musmeci bridge'. Universities involved: Nanjing Tech University (Dr. Cristoforo Demartino, prof. Yan Xiao), Federico II University (prof. Luciano Rosati, Dr. Francesco Marmo), University of Chieti Pescara (prof. Ivo Vanzi, Dr. Concetta Sulpizio), University of Mediterranean Studies of Reggio Calabria (Dr. Gabriele Candela), Fuzhou university (prof. Bruno Briseghella). From 01-07-2017 to today. Main research product:
    1. F. Marmo, C. Demartino, C. Sulpizio, G. Candela, B. Briseghella, Y. Xiao, I. Vanzi L. Rosati, (2018), Shape and structure in RC bridges: the Musmeci bridge. IASS 2018 Symposium, Boston 16-20 July 2018.
    2. Marmo F., Demartino C., Candela G., Sulpizio C., Briseghella B., Spagnuolo R., Xiao Y., Vanzi I., Rosati L. (2019). "On the form of the Musmeci's bridge over the Basento river". Engineering Structures, 191, 658-673.

15) Participation in the activities of a research group within the project 'Analysis and evaluation of seismic damage induced by the Ischia earthquake of 21 August 2017'. The research group is composed of Bruno Briseghella (Fuzhou University), Cristoforo Demartino (Nanjing Tech University), Alessandra Fiore (Polytechnic of Bari), Camillo Nuti, Davide Lavorato, Gabriele Fiorentino (University of Roma Tre), Ivo Vanzi and Concetta Sulpizio (University of Chieti Pescara). From 21-08-2017 to today. The results of this activity have merged into the following publication:
    1. Bruno Briseghella, Cristoforo Demartino, Alessandra Fiore, Camillo Nuti, Concetta Sulpizio, Ivo Vanzi, Davide Lavorato, Gabriele Fiorentino (2019) Preliminary data and field observations of the 21st August 2017 Ischia earthquake. Bulletin of Earthquake Engineering.

16) Participation in the activities of a research group characterized by international collaboration (China-USA-Italy) on the topic "Risk assessment of infrastructures and application to Fujian Province (China)" - Universities and research bodies involved: Fuzhou University (prof. Bruno Briseghella, Prof. Ai Qi, Prof. Huang FuYun); Nanjing Tech University (Dr. Cristoforo Demartino, prof. Xiao Yan); International Association of Bridge Earthquake Engineering, Washington DC, USA (Dr. Philip Yan, former Chief Engineer FHWA);

University of Roma Tre (prof. Camillo Nuti); University of Chieti-Pescara (prof. Ivo Vanzi). The candidate heads the research unit of Nanjing Tech University. From 17-12-2017 to today.

17) Co-principal investigator at Nanjing Tech university, of the project "Lateral impact resistance and design method of I-shaped CFRP-steel pipe-concrete composite members (工字形 CFRP- 钢管 - 混凝土 组合 构件 的 抗 侧向 冲击 性能 及 设计 方法) "funded by The National Nature Science Foundation of China (NSFC n. 51878419), (600,000 RMB, about 100,000 €) with principal investigator prof. G.C. Li from Shenyang University, China. From 1/1/2019 to 31/12/2022. The results of this activity have merged into the following publication:
    1. J.J. Xu, C. Demartino, B. Shan, J.C. Ding, Y. Xiao "Experimental investigation on the lateral impact response of cantilever CFRP-wrapped RC columns", Engineering Structures.
    2. Zhou, S. C., Demartino, C., Xu, J. J., & Xiao, Y. (2021). Effectiveness of CFRP seismic-retrofit of circular RC bridge piers under vehicular lateral impact loading. Engineering Structures, 243, 112602. (Corresponding author).

18) Coordinator of the project: "Sustainable residential prefabricated bamboo structures", at Zhejiang University/University of Illinois at Urbana-Champaign (ZJU-UIUC) Institute (China). National Research Project (2019YFD1101002) (6,530,000 RMB- around 800,000 euro). 2019-2022.

19) Coordinator of the project: "Probabilistic design and assessment of bridge cable systems under wind and climatic action", at Zhejiang University/University of Illinois at Urbana-Champaign (ZJU-UIUC) Institute (China). National Natural Science Foundation of China - Research Fund for International Young Scientists (400,000 RMB - around 50,000 euro). 2020-2022.

20) Coo-PI of the Infrastructure Trust of the CIRCLE (Center for Infrastructure Resilience in Cities as Livable Environments). Zhejiang University/University of Illinois at Urbana-Champaign Joint Research Center financed by Zhejiang University and University of Illinois at Urbana-Champaign (3,000,000 US$), PI: prof. Bill Spencer. 2020-2025.

    1. Demartino C., Quaranta G., Maruccio C., Pakrashi V., (2021) Feasibility of energy harvesting from vertical pedestrian-induced vibrations of footbridges for smart monitoring applications, Computer-Aided Civil and Infrastructure Engineering, Accepted for publication. (Corresponding author).
    2. Zhou C., Xiao D., Hu J., Yang Y., Li B., Hu S., Demartino C., Butala M., "An example of digital twins for bridge monitoring and maintenance: preliminary results", Proceedings of The 1st Conference of the European Association on Quality Control of Bridges and Structures – EUROSTRUCT2021, August 29 to September 1, 2021 at University of Padova, Italy. (Presenting author).

Part VIII – Summary of Scientific Achievements

Indicators relating to the impact of indexed scientific production (Scopus / Web of Science)

Number of papers:	56
Citations:	654
H index:	13

Indicators relating to the impact of indexed scientific production (Google Scholar)

Number of papers:	77
Citations:	770
H index:	16
i10-index:	25

Part IX– Selected Publications

1. Demartino C., Koss H.H., Georgakis C.T., Ricciardelli F. (2015). "Effects of ice accretion on the aerodynamics of bridge cables". Journal of Wind Engineering and Industrial Aerodynamics. Volume 138, 98-119. (Corresponding author). IF: 6.7. Citations: 45.

2. Demartino C., Ricciardelli F. (2015). "Aerodynamic stability of ice-accreted bridge cables". Journal of Fluids and Structures, 52, 81-100. IF: 5.4. Citations: 38.

3. Ricciardelli F., Demartino C. (2016). "Design of footbridges towards pedestrian-induced vibrations". Journal of Bridge Engineering. C4015003, 1-13. (Corresponding author). IF: 5.1. Citations: 29.

4. Xu J.J., Chen Z.P., Xiao Y., Demartino C., and Wang J.H. (2017). "Recycled Aggregate Concrete in FRP- confined columns: A review of experimental results". Composite Structures, 174, 277-291. IF: 6.7. Citations: 64.

5. Demartino C, Ricciardelli F. (2017). "Aerodynamics of nominally circular cylinders: a review of experimental results". Engineering Structures, volume 137, 76–114. (Corresponding author). IF: 6.9. Citations: 40.

6. Demartino C., Wu J.G, Xiao Y. (2017). "Response of shear-deficient reinforced circular RC columns under lateral impact loading". International Journal of Impact Engineering 109, 196-213. (Corresponding author). IF: 6.8. Citations: 54.

7. Demartino C., Vanzi I., Monti G., and Sulpizio C. (2018). "Precast industrial buildings in Southern Europe: loss of support at frictional beam-to-column connections under seismic actions". Bulletin of Earthquake Engineering, 16(1), 259-294. (Corresponding author). IF: 6.6. Citations: 20.

8. Xiong B., Demartino C., Xiao Y. (2019). "High-strain rate compressive behavior of CFRP confined concrete: Large diameter SHPB tests". Construction and Building Materials, 201, 484-501. (Corresponding author). IF: 9.2. Citations: 29.

9. Briseghella B., Demartino C., Fiore A., Nuti C., Sulpizio C., Vanzi I., Lavorato D., Fiorentino G. (2019). "Preliminary data and field observations of the 21st August 2017 Ischia earthquake". Bulletin of Earthquake Engineering, 17:1221–1256. (Corresponding author). IF: 6.6. Citations: 13.

10. Marmo F., Demartino C., Candela G., Sulpizio C., Briseghella B., Spagnuolo R., Xiao Y., Vanzi I., Rosati L. (2019). "On the form of the Musmeci's bridge over the Basento river". Engineering Structures, 191, 658-673. (Corresponding author). IF: 6.9. Citations: 16.

11. Demartino C., and Ricciardelli F. (2019). "Probabilistic versus Deterministic Assessment of the Minimum Structural Damping Required to Prevent Galloping of Dry Bridge Hangers".

Journal of Structural Engineering, 145(8), 04019078. (Corresponding author). IF: 5.2. Citations: 2.

12. Zhou, S. C., Demartino, C., Xu, J. J., & Xiao, Y. (2021). Effectiveness of CFRP seismic-retrofit of circular RC bridge piers under vehicular lateral impact loading. Engineering Structures, 243, 112602. (Corresponding author). IF: 6.9. Citations: 0.

13. Demartino C. (2014) Aerodynamics and aeroelastic behaviour of ice-accreted bridge cables. Ph.D. thesis. University of Naples Federico II.

Part X–Publications

XA – Indexed journals

1. Demartino C., Ricciardelli F. (2015). "Aerodynamic stability of ice-accreted bridge cables". Journal of Fluids and Structures, 52, 81-100.

2. Demartino C., Koss H.H., Georgakis C.T., Ricciardelli F. (2015). "Effects of ice accretion on the aerodynamics of bridge cables". Journal of Wind Engineering and Industrial Aerodynamics. Volume 138, 98-119. (Corresponding author).

3. Ricciardelli F., Demartino C. (2016). "Design of footbridges towards pedestrian-induced vibrations". Journal of Bridge Engineering. C4015003, 1-13. (Corresponding author).

4. Cheng X.X., Zhao L., Ge Y.J., Dong R., Demartino C. (2016). "Wind effects on rough-walled and smooth-walled large cooling towers". Advances in Structural Engineering, 1–22.

5. Cheng X.X., Zhao L., Ge Y.J., Dong R., Demartino C. "A comprehensive high Reynolds number effects simulation method for wind pressures on cooling tower models". Wind and Structures, Vol. 24, No. 2, 2017, 119-144.

6. Demartino C, Ricciardelli F. (2017). "Aerodynamics of nominally circular cylinders: a review of experimental results". Engineering Structures, volume 137, 76–114. (Corresponding author).

7. Avossa A.M., Demartino C, Ricciardelli (2017). "Design procedures for footbridges subjected to walking loads: Comparison and remarks". The Baltic Journal of Road and Bridge Engineering. 2017.

8. Demartino C., Monti G, Vanzi I. (2017). "Seismic loss-of-support conditions of frictional beam-to-column connections". Structural Engineering and Mechanics. 61(4), 527-538. (Corresponding author).

9. Avossa A.M., Demartino C., Ricciardelli F. (2017). "Assessment of the Peak Response of a 5MW HAWT Under Combined Wind and Seismic Induced Loads". The Open Construction and Building Technology Journal, 11(1).

10. Demartino, C., Vanzi, I., Monti, G. (2017). "Probabilistic estimation of seismic economic losses of portal-like precast industrial buildings". Earthquakes and Structures, 13(3), 323-335.

11. Avossa A.M., Demartino C., Contestabile P., Ricciardelli F., and Vicinanza D. (2017). “Some results on the vulnerability assessment of HAWTs subjected to wind and seismic actions”. Sustainability, 9(9), 1525.

12. Xu J.J., Chen Z.P., Xiao Y., Demartino C., and Wang J.H. (2017). “Recycled Aggregate Concrete in FRP- confined columns: A review of experimental results”. Composite Structures, 174, 277-291.

13. Demartino C., Wu J.G, Xiao Y. (2017). “Response of shear-deficient reinforced circular RC columns under lateral impact loading”. International Journal of Impact Engineering 109, 196-213. (Corresponding author).

14. Wang X, Demartino C., Xu J.J., Xiao Y. (2017). “Dynamic response of concrete filled steel tube column under lateral impact load: experimental study and calculation method (in Chinese)”. Tumu Gongcheng Xuebao/china Civil Engineering Journal, 50(12):28-36.

15. Demartino C., Vanzi I., Monti G., and Sulpizio C. (2018). “Precast industrial buildings in Southern Europe: loss of support at frictional beam-to-column connections under seismic actions”. Bulletin of Earthquake Engineering, 16(1), 259-294. (Corresponding author).

16. Fiore A., Sulpizio C., Demartino C., Vanzi I., Biondi S., Fabietti V. (2018). “Seismic vulnerability assessment of historical centers at urban scale”. International Journal of Architectural Heritage, 12(2), 257-269.

17. Demartino C., Avossa A. M., Ricciardelli F. (2018). “Deterministic and probabilistic serviceability assessment of footbridge vibrations due to a single walker crossing”. Shock and Vibration.

18. Demartino C., Ricciardelli F. (2018). “Assessment of the Structural Damping Required to Prevent Galloping of Dry HDPE Stay Cables Using the Quasi-Steady Approach”. Journal of Bridge Engineering, 23(4), 04018004. (Corresponding author).

19. Xu J.J., Chen Z.P., Ozbakkaloglu T., Zhao X.-Y., Demartino C. (2018). “A critical assessment of the compressive behavior of reinforced recycled aggregate concrete columns”. Engineering Structures, Volume 161, 161-175.

20. Fiore A., Demartino C., Greco R., Rago C., Sulpizio C., Vanzi I. (2018). “Seismic performance of spherical liquid storage tanks: a case study”. International Journal of Advanced Structural Engineering, 1-10.

21. Wang J.S., Demartino C., Xiao Y., Li Y.Y. (2018). “Thermal insulation performance of bamboo- and wood-based shear walls in light-frame buildings”. Energy and Buildings, 168, 167-179. (Corresponding author).

22. Wu J., Xiao Y., Demartino C. (2018) “Impact Behaviour of Circular Section RC Cantilever Columns (in chinese)”. Structural Engineers. 34(6).

23. Fragiacomo M., Gregori A., Xue J., Demartino C., Toso M. (2018). “Timber-concrete composite bridges: Three case studies”. Journal of Traffic and Transportation Engineering (English Edition), 5(6), 429-438.

24. Quaranta G., Demartino C., and Xiao Y. (2019). “Experimental dynamic characterization of a new composite glubam-steel truss structure”. Journal of Building Engineering, 25, 100773. (Corresponding author).

25. Marmo F., Demartino C., Candela G., Sulpizio C., Briseghella B., Spagnuolo R., Xiao Y., Vanzi I., Rosati L. (2019). “On the form of the Musmeci’s bridge over the Basento river”. Engineering Structures, 191, 658-673. (Corresponding author).

26. Briseghella B., Demartino C., Fiore A., Nuti C., Sulpizio C., Vanzi I., Lavorato D., Fiorentino G. (2019). “Preliminary data and field observations of the 21st August 2017 Ischia earthquake”. Bulletin of Earthquake Engineering, 17:1221–1256. (Corresponding author).

27. Xu J.J., Chen Z.P., Zhao X.Y., Demartino C., Ozbakkaloglu T., Xue J.Y. (2019). “Seismic performance of circular recycled aggregate concrete-filled steel tubular columns: FEM modelling and sensitivity analysis”. Thin-Walled Structures, 141, 509-525.

28. Demartino C., and Ricciardelli F. (2019). “Probabilistic versus Deterministic Assessment of the Minimum Structural Damping Required to Prevent Galloping of Dry Bridge Hangers”. Journal of Structural Engineering, 145(8), 04019078. (Corresponding author).

29. Wang J., Demartino C., Li Y., Xiao Y. (2019). “Experimental study on thermal performance of lightweight frame bamboo and wood walls (in chinese)”. Journal of Building Structures, Vol. 40 N. 9.

30. Fiore A., Vanzi I., Nuti, C., Demartino C., Greco R., Briseghella B. (2019). “To compute or not to compute?”. Journal of Traffic and Transportation Engineering (English Edition), 6(1), 85-93.

31. Xiong B., Demartino C., Xiao Y. (2019). “High-strain rate compressive behavior of CFRP confined concrete: Large diameter SHPB tests”. Construction and Building Materials, 201, 484-501. (Corresponding author).

32. Di Gangi G., Demartino C., Quaranta G., and Monti G. (2020). “Dissipation in sheathing-to-framing connections of light-frame timber shear walls under seismic loads”. Engineering Structures, 208, 110246. (Corresponding author).

33. Xu J. J., Demartino C., Shan B., Heo Y. A., Xiao Y. (2020). “Experimental investigation on performance of cantilever CFRP-wrapped circular RC columns under lateral low-velocity impact”. Composite Structures, 112143. (Corresponding author).

34. Li Z., Xu J.J., Demartino C., Zhang K.-S. (2020). “Extremely-low cycle fatigue fracture of Q235 steel at different stress triaxialities”. Journal of Constructional Steel Research, 169, 106060.

35. Demartino, C., Monti, G. (2020) “Low-LOD code-driven identification of the high seismic risk areas for industrial buildings in Italy”. Bulletin of Earthquake Engineering, 1-32. (Corresponding author).

36. Zhou S.C., Demartino C., Xiao Y. (2020) “High-strain rate compressive behavior of Douglas fir and glubam”. Construction and Building Materials, 119466, 1-16. (Corresponding author).

37. Deresa, S.T., Xu, J.J., Demartino, C., Heo, Y.A., Li, Z., Xiao, Y. (2020) “A review of experimental results on structural performance of reinforced recycled aggregate concrete beams and columns”. Advances in Structural Engineering. (Corresponding author).

38. Rizzo F., Demartino C. (2021) "Pressure modes for hyperbolic paraboloid roofs" Curved and Layered Structures.

39. Nghiem A., Demartino C., Xiao Y., Thomas H.-K. K. (2021) “Impact Behavior of Unbonded Post-Tensioned Concrete Beams” ACI Structural and Materials Journals, 118-S16.

40. Deresa, S. T., Xu, J., Demartino, C., Minafò, G., & Camarda, G. (2021). Static Performances of Timber-and Bamboo-Concrete Composite Beams: A Critical Review of Experimental Results. The Open Construction & Building Technology Journal, 15(1).

41. Zhou, S. C., Demartino, C., Xu, J. J., & Xiao, Y. (2021). Effectiveness of CFRP seismic-retrofit of circular RC bridge piers under vehicular lateral impact loading. Engineering Structures, 243, 112602. (Corresponding author).

42. Xiong, B., Demartino, C., Xu, J., Simi, A., Marano, G. C., & Xiao, Y. (2021). High-strain rate compressive behavior of concrete made with substituted coarse aggregates: Recycled crushed concrete and clay bricks. Construction and Building Materials, 301, 123875. (Corresponding author).

43. Xu, J. J., Chen, W. G., Demartino, C., Xie, T. Y., Yu, Y., Fang, C. F., & Xu, M. (2021). A Bayesian model updating approach applied to mechanical properties of recycled aggregate concrete under uniaxial or triaxial compression. Construction and Building Materials, 301, 124274. (Corresponding author).

44. Demartino C., Quaranta G., Maruccio C., Pakrashi V., (2021) Feasibility of energy harvesting from vertical pedestrian-induced vibrations of footbridges for smart monitoring applications, Computer-Aided Civil and Infrastructure Engineering, Accepted for publication. (Corresponding author).

45. Peng T., Chen L., Liu T., Demartino C. and Xu J. (2021) Static shear performance and residual axial capacity of rectangular RC bridge piers under near-ground lateral loads, Journal of Structural Engineering, Accepted for publication.

46. Liu T., Chen L., Xu J., Demartino C., and Kang H.-K.T. (2021) Vehicle Collision with Reinforced Concrete Columns Wrapped with Fiber-Reinforced Polymer Composites, ACI Structural/Materials Journal, Accepted for publication.

XB – Other journals

1. Ricciardelli F., Demartino C., Avossa A.M. (2016) “Verifica di passerelle pedonali nei confronti delle azioni antropiche: confronto tra approcci normativi - Design of footbridges

against anthropic actions: a comparison between code procedures". Costruzioni Metalliche, Year LXVIII, September-October 16, 51-59.

2. Fiore A., Vanzi I., Nuti C., Greco R., Lavorato D., Demartino C., Briseghella B. (2019) "Seismic safety of the Calabria hospitals and road networks". International Journal of Mathematical Models and Methods in Applied Sciences, 141-148, Volume 13.

3. Di Gangi G., Monti, G., Quaranta, G., Vailati, M. Demartino, C. (2020) "A simplified analytical procedure for seismic analysis of timber light-frame shear walls", NED University Journal of Research, 3, 173-180.

4. Di Gangi G., Demartino, C., Quaranta, G., (2020) "Bamboo Lightweight Shear Walls: Modeling and Identification of Sheathing-to-Framing Connections for Seismic Response Analysis". International Journal of Structural Glass and Advanced Materials Research.

5. Minardi M., Demartino C., Di Trapani F., Quaranta G., Li Z., Xiao Y. (2020) "Un'innovativa struttura reticolare spaziale in acciaio e glubam: caratterizzazione sperimentale del comportamento statico e dinamico - An innovative truss structure in steel and glubam: experimental characterization of static and dynamic behavior". Costruzioni Metalliche, Year LXXII, May-June 16, 40-48. (Corresponding author).

6. Demartino, C., Sessa, S. Marmo, F. (2021) "OpenSees: un potente strumento per il FEM". lo strutturista in "Analisi FEM delle strutture", July 2021.

XC – Chapters in books

1. Demartino C., Zhou S., (2021) "Mathematical Tools for the Seismic Analysis of Reinforced Concrete Structures: A Selected Review", Mathematical Applications in Continuum and Structural Mechanics, editors: Francesco Marmo, Salvatore Sessa, Emilio Barchiesi, Mario Spagnuolo. Springer Nature.

2. Faleschini F., Zanini M.A., Demartino C., (2021) "Design guidelines for structural and non-structural applications", Handbook of Sustainable Concrete and Industrial Waste Management, editors: Francesco Colangelo. Springer Nature.

XD – Books

1. Liu K., Demartino C., Zhi Li Z., Liu Q., Xiao Y., "2019 International Bamboo Construction Competition: From the Concepts to the Realized Pavilions" Springer Nature. (Accepted - to be published in 2022).

XE – Conferences

1. Demartino C., Koss H.H, Ricciardelli F. "Experimental study of the effect of icing on the aerodynamics of circular cylinders - Part I: Cross flow". 6th European and African Wind Engineering Conference. Cambridge, UK. July 7-11 2013. (Presenting author).

2. Demartino C., Georgakis C.T., and Ricciardelli F. "Experimental study of the effect of icing on the aerodynamics of circular cylinders - Part II: Inclined flow". 6th European and African Conference on Wind Engineering, Cambridge, UK. July 7-11 2013. (Presenting author).

3. Demartino C., Ricciardelli F. “Prediction of the buffeting response of ice-accreted stay cables”. IN-VENTO 2014 XIII Conference of the Italian Association for Wind Engineering 22-25 June 2014, Genova, Italy. (Presenting author).

4. Demartino C., Ricciardelli F. “Aerodynamic stability of dry stay cables using different quasi-steady models”. IN-VENTO 2014 XIII Conference of the Italian Association for Wind Engineering 22-25 June 2014, Genova, Italy. (Presenting author).

5. Demartino C., Ricciardelli F. “Prediction of the aerodynamic instability of ice-accreted bridge cables using different stability criteria”. 9th International Conference on Structural Dynamics, EURODYN 2014 Porto, Portugal, 30 June - 2 July 2014, A. Cunha, E. Caetano, P. Ribeiro, G. Müller (eds.) ISSN: 2311-9020; ISBN: 978-972-752-165-4. (Presenting author).

6. Ricciardelli F., Demartino C. “I due crolli del pont de québec: una lezione da non dimenticare (The two collapses of the pont de Québec: a lesson not to be forgotten)”. III convegno di Ingegneria Forense – VI Convegno su Crolli, Affidabilità Strutturale, Consolidamento - Università di Roma “La Sapienza”, 14-16 May 2015.

7. Demartino C., Monti G., Vanzi I. “Seismic performance assessment of precast concrete industrial buildings: preliminary results”. OpenSees Days Italy, 10-11 June 2015, University of Salerno. (Presenting author).

8. Demartino C., Georgakis C.T., and Ricciardelli F. “Aerodynamics of bridge hangers in smooth and turbulent flow and implications on aeroelastic stability”. 14th International Conference on Wind Engineering – Porto Alegre, Brazil – June 21-26, 2015.

9. Ricciardelli F., Demartino C, Avossa A. “Aspetti controversi della verifica delle passerelle pedonali nei confronti delle azioni antropiche - Misconceptions of design procedures of footbridges subjected to pedestrian loads”. XXV CONGRESSO C.T.A., Salerno 1-3 October 2015.

10. Demartino C., Ricciardelli F. “Comportamento aeroelastico di stralli asciutti e ghiacciati: similitudini e differenze - Aerodynamic behaviour of dry and ice accreted stay cables: similarities and differences”. XXV CONGRESSO C.T.A., Salerno 1-3 October 2015. (Presenting author).

11. Demartino C., Monti G, Vanzi I. “Effects of the disaggregation of seismic hazard on the loss of support”. ACEM 2016, Jeju island, Korea, 28 August - 1 September, 2016. (Presenting author).

12. Demartino C., Matteoni G, Georgakis C.T. “GallAnalyzer: Open Source Toolkit for galloping stability assessment”. IN-VENTO 2016 XIV Conference of the Italian Association for Wind Engineering 25-28 September 2016, Terni, Italy. (Presenting author).

13. Demartino C., Avossa A.M, Ricciardelli F. “Vulnerability of the urban and rural environment to extreme winds: the February 28 event in Italy”. IN-VENTO 2016 XIV Conference of the Italian Association for Wind Engineering 25-28 September 2016, Terni, Italy. (Presenting author).

14. Avossa A.M., Demartino C., Ricciardelli C, Ferraioli M. “A probabilistic framework to the design of HAWTs subjected to combined wind and seismic actions: preliminary results”. IN-VENTO 2016 XIV Conference of the Italian Association for Wind Engineering 25-28 September 2016, Terni, Italy.

15. Di Gangi G., Demartino C., Monti G. “Timber shear walls: Numerical Assessment of Dissipation of Sheathing-to-Framing Connections”. European OpenSees Days Portugal. Porto, 19 June 2017.

16. Marano G.C., Demartino C., Greco R., Briseghella, B., Fiore A. “OpenSees solver with a Differential Evolutionary Algorithm for structural optimization of hollow sections steel structures”. European OpenSees Days Portugal. Porto, 19 June 2017.

17. Demartino C., Avossa A.M., Ricciardelli C., Calidonna, R.C. “Wind Profiles Identification Using Wind Lidars: An Application to The Area Of Lamezia Terme”. European-African Conference on Wind Engineering, Liege, 4-7 July 2017.

18. Avossa A.M., Demartino C., Ricciardelli C. “Peak response of hawts to wind and seismic actions”. European-African Conference on Wind Engineering, Liege, 4-7 July 2017.

19. Demartino C., Xu J.J., Wu J.G., Wang X.Y., Ding J.C., Xiao Y. “A comparison of the impact behavior of RC and CFT circular columns under lateral impact loading”. Structural Engineering and Mechanics (ASEM17) 28 August - 1 September, 2017, Seoul, Korea. (Presenting author).

20. Demartino C., Wu J., Xiao Y. “Experimental and numerical study on the behavior of circular RC columns under impact loading”. X International Conference on Structural Dynamics, EURODYN 2017, 10 -13 September 2017, Rome, Italy published on Procedia Engineering 199 (2017): 2457-2462. (Presenting author).

21. Avossa A.M., Demartino C., Ricciardelli F. “Probability distribution of footbridge peak acceleration to single and multiple crossing walkers”. X International Conference on Structural Dynamics, EURODYN 2017, 10 -13 September 2017, Rome, Italy published on Procedia Engineering, 2017, 199: 2766-2771. (Presenting author).

22. Demartino C., Xu J.J., Huang D. Xiao Y. “Experimental study of the mechanical behavior of CFT columns under impact loading: preliminary results”. 9th International Symposium on Steel Structures, November 1-4, 2017, Jeju, Korea. (Presenting author).

23. Xu J.J., Chen Z.P., Xue J.Y., Demartino C. “Shear cracking strength prediction of beam - steel reinforced concrete T-shaped column 3D joints”. 9th International Symposium on Steel Structures, November 1-4, 2017, Jeju, Korea.

24. Avossa A.M., Demartino C., Vardaroglu M., Ricciardelli F. (2018) “Probabilistic assessment of the peak response of Hawts to wind and seismic actions”/ WinerCOST18 The International Conference on Wind Energy Harvesting 2018, 21-23 March 2018, Catanzaro Lido, Italy. (Presenting author).

25. Demartino C., Maruccio C., Quaranta G., “Energy harvesting from vertical pedestrian-induced vibrations of footbridges”. The 7th World Conference on Structural Control and Monitoring, 7WCSCM, July 22-25, 2018, Qingdao, China.

26. Di Gangi, G., Demartino, C., Quaranta, G., Vailati, M., and Monti, G., "Timber shear walls: numerical assessment of the equivalent viscous damping". The 9th International Conference on Computational Methods ICCM2018, 6-10 August 2018, Rome, Italy.

27. Xu J.J., Zhao X.Y., Demartino C, Chen Z.P., "FEM analysis of reinforced RAC columns under cyclic loading: preliminary results". ACEM18 The 2018 World Congress on Advances in Civil, Environmental, and Materials Research and Structures18 The 2018 Structures Congress, 27-31 August 2018, Songdo Convensia, Incheon, Korea.

28. Demartino C., Ricciardelli F., "Probabilistic assessment of the galloping stability of ice-accreted bridge hangers". XV Conference of the Italian Association for Wind Engineering, IN-VENTO-2018, 9-12 September 2018, Castel dell'Ovo, Naples, Italy. (Presenting author).

29. Marmo, F., Demartino, C., Sulpizio, C., Candela, G., Briseghella, B., Spagnuolo, R., Xiao, Y., Vanzi I, Rosati, L., "Shape and structure in RC bridges: the Musmeci bridge". Proceedings of the IASS Symposium 2018 Creativity in Structural Design July 16-20, 2018, MIT, Boston, USA Caitlin Mueller, Sigrid Adriaenssens (eds.).

30. Xiong B.B., Demartino C., Xiao Y. "SHPB tests on CFRP confined concrete: preliminary results". The 8th International Conference of Asian Concrete Federation (ACF2018) "Concrete for better world" November 4–7, 2018, Fuzhou, China. (Presenting author).

31. Marano G.C., Demartino C., Xu J.J., Wang J.S., Deresa S.T., Gregori A. "Compressive strength prediction of concrete with recycled rubber aggregates from tires". The 8th International Conference of Asian Concrete Federation (ACF2018) "Concrete for better world" November 4–7, 2018, Fuzhou, China. (Presenting author).

32. Demartino C., Xiao Y., Wang J.S., "Experimental and numerical assessment of the thermal insulation performances of bamboo shear walls". The Global Bamboo and Rattan Congress, BARC 2018, 25 - 27 June 2018, National Convention Centre, Beijing, China. (Presenting author).

33. De Capua A., Tornatora M., Demartino C., Li Z., Xiao Y. "The experience of the Sino-Italian "Bamboo #Pavillon Contest_A contest for a Pavilion in Bamboo Technology". The Global Bamboo and Rattan Congress, BARC 2018, 25 - 27 June 2018, National Convention Centre, Beijing, China. (Presenting author).

34. Candela G., Barrile V., Demartino C., Monti G., "Image based 3d reconstruction of bamboo-steel spatial truss structure using mini-UAV". The Global Bamboo and Rattan Congress, BARC 2018, 25 - 27 June 2018, National Convention Centre, Beijing, China.

35. Demartino C., Matteoni G., and Georgakis C.T., "A quasi-steady 3-DoFs sectional aerodynamic model: preliminary results". First International Nonlinear Dynamics Conference, Sapienza University of Rome, February 17-20, 2019. (Presenting author).

36. Avossa A.M., Demartino C., Ricciardelli F., Malangone P. "Analisi della risposta e verifica di ponti pedonali nei confronti delle azioni antropiche". Recenti sviluppi nell'Ingegneria Strutturale convegno in onore di Antonio Grimaldi, September 27-28 2018, Maratea (PZ), Italy.

37. Di Gangi G., Monti, G., Quaranta, G., Vailati, M., Demartino, C., "A simplified analytical procedure for seismic analysis of timber light-frame shear walls". South Asia Conference on Earthquake Engineering (SACEE), 21-22 February 2019, Karachi, Pakistan.

38. Avossa A.M., Demartino, C., Vardaroğlu, M., Picozzi V. "A simplified OpenSees model of horizontal-axis wind turbines under combined wind and seismic induced loads". First Eurasian Conference on OpenSees, 20-21 June, 2019, Hong Kong. (Presenting author).

39. Demartino C., Gullì D., Avossa A.M., Calidonna C.R. "Logarithmic and power-law approximation of vertical wind profiles based on wind lidar measurements: preliminary results". The 15th International Conference on Wind Engineering Beijing, China; September 1-6, 2019. (Presenting author).

40. Di Gangi G., Demartino C., Quaranta G., Monti G. "Modellazione parametrica di pareti a telaio leggero in legno mediante OpenSees". XVIII Convegno ANIDIS L'ingegneria sismica in Italia. Ascoli Piceno, Italy, September 15-19 2019.

41. Demartino C., Quaranta G, Mollaioli F. "Response of RC frames under pulse-like seismic ground motion: sensitivity analysis and relevance of the dominant pulse". XVIII Convegno ANIDIS L'ingegneria sismica in Italia. Ascoli Piceno, Italy, September 15-19 2019. (Presenting author).

42. Sulpizio C., Fiore A., Demartino C., Vanzi I., Briseghella B. "Optimal design criteria for form-finding of double-curved surfaces" 1st International Conference on Optimisation-Driven Architectural Design (OPTARCH 2019), November 5-7 2019, Amman, Jordan.

43. Candela G., Demartino C., Monti G., Nisticò, N. "Rapid seismic assessment of bridges using UAV aerial survey and photogrammetry: preliminary results" GNGTS Conference, 12-14 November 2019, Rome, Italy.

44. Zhou S.C., Demartino C., Xiao Y. "High-strain rate compressive tests on glubam: preliminary results". 13th International Conference on Shock and Impact Loads on Structures 14-15 December 2019, Guangzhou, China.

45. Rizzo F., Demartino C. "Pressure modes for hyperbolic paraboloid roofs". IWSS2020 1st Italian Workshop on Shell and Spatial Structures, 25-26 June 2020, web meeting.

46. Candela G., Demartino C., Marmo, F., Monti G., "Geometrical survey of shell and spatial structures using UAV photogrammetry: applicative example". IWSS2020 1st Italian Workshop on Shell and Spatial Structures, 25-26 June 2020, web meeting.

47. Zhu X., Wang S., Gullì D., Calidonna C.R., Butala M., and Demartino C. "Unsupervised Wind Profile Classification: Preliminary Results". ACEM20 The 2020 World Congress on Advances in Civil, Environmental, and Materials Research. GECE, Seoul, Korea, 26-28 August 2020. (Presenting author).

48. Mostaed Shirehjini R., Demartino C., Li Z., "Bamboo culm structures: A review on round bamboo applications and prospects". ACEM20 The 2020 World Congress on Advances in Civil, Environmental, and Materials Research. GECE, Seoul, Korea, 26-28 August 2020.

49. Demartino C., Quaranta G., Mollaioli F. “Preliminary insights on the inelastic seismic response of structural systems under pulse-like ground motion” 17th World Conference on Earthquake Engineering, 17WCEE Sendai, Japan - September 13th to 18th 2020.

50. Marmo F., Demartino C., Pellecchia D., Paradiso M., Vaiana N., Sessa S., Rosati L., “The double-curvature shell of the Musmeci’s bridge”. VIII Convegno di Storia dell’Ingegneria - Napoli 2020 4th International Conference on History of Engineering - Naples - Italy - 11 December 2020.

51. Demartino C., “Material, structural behavior and retrofit strategies of columns under lateral impact”, The 3rd International Conference on Engineering Innovation and Seismic Mitigation of Bridges (ICEISMB2020), 21-22 November 2020, Online, China. (Presenting author).

52. Sun Z., Demartino C. “Investigation on effects of temperature and wind on expansion joints with monitoring data”, Proceedings of the 10th International Conference on Structural Health Monitoring of Intelligent Infrastructure, SHMII 10 Porto, Portugal, 30 June - 2 July 2021.

53. Zhang Q., Wang Y., Wang H., Demartino C., Marmo F., Li Z., Xiao Y. “Development of an active bending temporary corridor based on bamboo strips: preliminary results”, Proceedings of the IASS Annual Symposium 2020/21 and the 7th International Conference on Spatial Structures Inspiring the Next Generation 23 – 27 August 2021, Guilford, UK. (Presenting author).

54. Zhou C., Xiao D., Hu J., Yang Y., Li B., Hu S., Demartino C., Butala M., “An example of digital twins for bridge monitoring and maintenance: preliminary results”, Proceedings of The 1st Conference of the European Association on Quality Control of Bridges and Structures – EUROSTRUCT2021, August 29 to September 1, 2021 at University of Padova, Italy. (Presenting author).

55. Lai D., Lin L., Yan X., Li Z., Xu K., Demartino C., Xiao Y.., “Development of a Steel Fiber-reinforced Rubber Concrete for Jacketing of Bridge Piers against Vehicular Impacts: Preliminary Results”, Proceedings of The 1st Conference of the European Association on Quality Control of Bridges and Structures – EUROSTRUCT2021, August 29 to September 1, 2021 at University of Padova, Italy.

56. Zhou S.C., Demartino C. Xiao Y., “A comparison of CFRP retrofitted columns under lateral impact loads with different boundary conditions”, Proceedings of The 1st Conference of the European Association on Quality Control of Bridges and Structures – EUROSTRUCT2021, August 29 to September 1, 2021 at University of Padova, Italy. (Presenting author).

57. Xiong B., Demartino C., Marano G.C., Di Tranpani F., Xu J., Xiao Y., “Dynamic compressive behavior of recycled bricks aggregate concrete under SHPB tests”, Proceedings of The 1st Conference of the European Association on Quality Control of Bridges and Structures – EUROSTRUCT2021, August 29 to September 1, 2021 at University of Padova, Italy.

XF – Thesis

1. Demartino C. “La valutazione delle caratteristiche meccaniche del calcestruzzo in opera” (In situ evaluation of the mechanical characteristics of the concrete). Batchelor thesis (Tesi di laurea triennale) in Civil Engineering (Supervisor: prof. Adolfo Santini). University Mediterranea of Reggio Calabria (Italy). 2008.

2. Demartino C. “Comportamento non locale di solidi elasto-plastici unidimensionali” (Non local behaviour of unidimensional elastoplastic solids). Master thesis (Tesi di laurea magistrale) in Civil Engineering. Structural Engineering (Supervisor: prof. Adolfo Santini) - University Mediterranea of Reggio Calabria (Italy). 2010.

3. Demartino C. “Valutazione delle perdite economiche derivanti da eventi sismici per edifici industriali monopiano” (Evaluation of the seismic economic losses of precast concrete industrial buildings). Master thesis in the second level master “Valutazione, controllo e riduzione del rischio sismico” (Supervisor: prof. Giorgio Monti). University of Rome Sapienza (Italy). 2012.

4. Demartino C. “Aerodynamics and aeroelastic behaviour of ice-accreted bridge cables”. Ph.D. thesis (Supervisor: prof. Mario Pasquino e prof. Francesco Ricciardelli). University of Naples Federico II (Italy). 2014.

5. Demartino C. “Structural and non-structural elements subjected to extreme loads”. Post-doc thesis (Supervisor: prof. Yan Xiao e prof. Sashi Kunnath). Nanjing Tech University (China). 2018.

Part XI–Patents

1) OpenSource software called "GallAnalyzer: Open-Source Toolkit for galloping stability assessment" based on Matlab environment, for the evaluation of aeroelastic stability conditions, described in the articles:
    a. Demartino C., Matteoni G. and Georgakis C.T. “GallAnalyzer: Open-Source Toolkit for galloping stability assessment” IN-VENTO 2016 XIV Conference of the Italian Association for Wind Engineering 25-28 September 2016, Terni, Italy.
    b. Demartino C., Matteoni G. and Georgakis C.T. (2019) “A quasi-steady 3-DoFs sectional aerodynamic model: preliminary results”. “First International Nonlinear Dynamics Conference – Nodycon 2019”, Roma, Italia, 17/2/2019 al 20/2/2019.
2) OpenSource software called "Economic Loss Estimator (ELE)" for the probabilistic evaluation of economic losses deriving from seismic events for single-storey industrial buildings based on Microsoft Excel© and Oracle Crystal Ball©, described in the following works:
    a. Demartino C. “Valutazione delle perdite economiche derivanti da eventi sismici per edifici industriali monopiano”. Tesi di Master in “Valutazione, controllo e riduzione del rischio sismico” (Relatore: prof. Giorgio Monti) - Università degli Studi 'La Sapienza' Roma. 2012.
    b. Demartino C., Monti G. and Vanzi I. “Seismic loss-of-support conditions of frictional beam-to-column connections” Structural Engineering and Mechanics. 2017.
3) Creation of the website http://www.rischio-sismico.it/ for the assessment of the seismic risk of reinforced concrete buildings and masonry in accordance with the procedure proposed by Ministerial Decree 65/2017 called the "bonus earthquake" procedure. The site is proposed among other things as a community on seismic risk.

4) Design and construction of an experimental apparatus to reproduce cloud ice accretion conditions in a climatic wind tunnel at the Force Technology of Lyngby, Copenhagen, Denmark (spray bar). From 02-11-2012 to today. The tool was used in the elaboration of the candidate's following scientific works:
    a. Demartino C., Koss H.H. and Ricciardelli F. "Experimental study of the effect of icing on the aerodynamics of circular cylinders-Part I: Cross flow." 6th European and African on Wind Engineering Conference. Cambridge, UK. 2013.
    b. Demartino C., Georgakis C.T., and Ricciardelli F. "Experimental study of the effect of icing on the aerodynamics of circular cylinders-Part II: Inclined flow." 6th European and African on Conference on Wind Engineering, Cambridge, UK. 2013.
    c. Demartino C. "Aerodynamics and aeroelastic behaviour of ice-accreted bridge cables". Tesi di dottorato - Dipartimento di Strutture per l'Ingegneria e l'Architettura, Università degli Studi di Napoli Federico II°. 2014.
    d. Demartino C. and Ricciardelli F. "Aerodynamic stability of ice-accreted bridge cables", Journal of Fluids and Structures, Volume 52, January 2015, Pages 81-100.
    e. Demartino C., Koss H.H., Georgakis C.T. and Ricciardelli F. "Effects of ice accretion on the aerodynamics of bridge cables" Journal of Wind Engineering and Industrial Aerodynamics. Volume 138, 2015, Pages 98-119.
    f. Furthermore, the experimental setup has been used in the works of other authors, including:
    g. Koss, H., & Lund, M. S. M. (2013). Experimental investigation of aerodynamic instability of iced bridge cable sections. In Proceedings of the 6th European and African on Wind Engineering Conference.
    h. Koss, H., Henningsen, J. F., & Olsen, I. (2013, September). Influence of icing on bridge cable aerodynamics. In Proceedings of the 15th International Workshop on Atmospheric Icing of Structures (IWAIS XV).
    i. Hudecz, A., Koss, H., & Hansen, M. O. (2013). Ice accretion on wind turbine blades. Proceedings of the IWAIS, Newfoundland and Labrador, Sept, 8-11.
    j. Andre, Julia, Anne Kiremidjian, and Christos Thomas Georgakis. "Statistical Modeling of Time Series for Ice Accretion Detection on Bridge Cables." Journal of Cold Regions Engineering 32.2 (2018): 04018004.
    k. Finally, the experimental apparatus was used to carry out various external consultancy works by Force Technology, including for "Dywidag system international DSI".
5) Co-ownership of the utility model patent entitled "Specially shaped concrete shear walls reinforced using outer steel plates and inner spiral stirrups" of the Chinese agency SIPO (State Intellectual Property Office) number ZL 201820149611.6. Co-owners: Jinjun Xu, Jing Xu, Xinliang Huang, Yuwu Hua, Feng Jin, Cristoforo Demartino, Xiaopeng Wang. Starting from 26/10/2018.

Curriculum Vitae – Marco Filippo Ferrotto

Posizione Corrente	**Assegnista di Ricerca** presso l'Università degli Studi di Palermo, Dipartimento di Ingegneria AREA CUN 08, SSD ICAR/09 Responsabile scientifico: Prof. Liborio Cavaleri Titolo: *Valutazione della vulnerabilità del costruito ad azioni prodotte da Tsunami*
Titolo di Studio	**Laurea Specialistica in Ingegneria dei Sistemi Edilizi**, 27/03/2014 Voto: 110/110 cum Laude Università degli Studi di Palermo, Facoltà di Ingegneria. Titolo della tesi: *Risposta di pilastri in c.a. rinforzati con angolari e calastrelli in regime di pressoflessione*. Relatore Prof. Liborio Cavaleri.
Titoli Post-Laurea	• **Abilitazione Scientifica Nazionale** ai sensi dell'art. 16 della legge 240/2010. Settore Concursale 08/B3 – Tecnica delle Costruzioni. **Professore di II fascia**. Validità Abilitazione: Dal 03/06/2021 al 03/06/2030 • **Dottorato di ricerca in Ingegneria Civile, Ambientale e dei Materiali, Indirizzo Ingegneria Strutturale e Geotecnica** (Titolo di Doctor Europeaus), Università degli Studi di Palermo Tutor: Prof. Liborio Cavaleri, Prof. Maurizio Papia External Advisor: Prof. Oliver Fischer Titolo della tesi: *Compressive response of concrete columns under service conditions strengthened by confining devices: from the local to the global behavior*. Data conseguimento: 15/02/2018 • **Borsa di Post-Dottorato**, Università degli Studi di Palermo, Dipartimento di Ingegneria Referente: Prof. Antonino Valenza Titolo: *Comportamento teorico-sperimentale di strutture leggere modulari realizzate con materiali compositi per le applicazioni di emergenza* 30/06/2018-30/12/2018 • **Assegno di Ricerca**, Università degli Studi di Palermo, Dipartimento di Ingegneria AREA CUN 08, SSD ICAR/02, SSD ICAR/09 Responsabile scientifico: Prof. Goffredo La Loggia Referente: Prof. Liborio Cavaleri Titolo: *Effetti della variazione del livello di invaso sulla resistenza delle sponde in rilevato di piccoli serbatoi collinari* 18/06/2019-18/06/2020

- **Cultore della Materia** "Tecnica delle Costruzioni" dal 02/04/2020

- **Cultore della Materia** "Costruzioni in zona sismica" dal 02/04/2020

- **Assegno di Ricerca**,
  Università degli Studi di Palermo, Dipartimento di Ingegneria
  AREA CUN 08, SSD ICAR/09
  Responsabile scientifico: Prof. Liborio Cavaleri
  Titolo: *Valutazione della vulnerabilità del costruito ad azioni prodotte da Tsunami*
  20/10/2020-20/10/2021

- **Assegno di Ricerca**,
  Università degli Studi di Palermo, Dipartimento di Ingegneria
  AREA CUN 08, SSD ICAR/09
  Responsabile scientifico: Prof. Liborio Cavaleri
  Titolo: *Valutazione della vulnerabilità del costruito ad azioni prodotte da Tsunami*
  20/10/2021-attualmente in corso

Attività didattiche

Attività didattica per Corsi di Dottorato

- Titolare del corso "*Applicazioni FEM nella meccanica strutturale mediante Abaqus/CAE*", per il corso di Dottorato in "Ingegneria Civile, Ambientale e dei Materiali". 28 ore (3 CFU).
  Università degli Studi di Palermo.
  Dal 02-07-2019 al 01-08-2019.

- Titolare del corso "*Elementi di modellazione FEM per la meccanica strutturale mediante Abaqus/CAE*" per il corso di Dottorato di ricerca "Advances In Modeling, Health-monitoring, Infrastructures, Geomatics, Geotechnics, Hazards, Engineering Structures, Transportation (Aim Highest)". 28 ore (3 CFU).
  Università degli Studi di Palermo.
  Dal 15-10-2020 al 20-12-2020.

Attività di supporto alla didattica

- Tutor ed Esercitazioni per il Corso di "*Tecnica delle Costruzioni*" per il corso di laurea in Ingegneria Edile, tenuto dal Prof. Liborio Cavaleri. Università degli Studi di Palermo
  Da gennaio 2015 ad oggi.

- Tutor ed Esercitazioni per il Corso di "*Costruzioni in zona sismica*" per il corso di laurea in Ingegneria dei Sistemi Edilizi, tenuto dal Prof. Liborio Cavaleri. Università degli Studi di Palermo
  Da gennaio 2015 ad oggi.

- Membro delle commissioni d'esame per i corsi afferenti al SSD ICAR/09 (Tecnica delle Costruzioni, Costruzioni in Zona Sismica), Università degli Studi di Palermo.
  Da maggio 2020 ad oggi.

Lezioni e Seminari

- Docente del corso ex Art. 10 "*Controlli, indagini non distruttive e tecniche di consolidamento sugli edifici in c.a. e acciaio*".
  Lezioni svolte: i) Tecniche di consolidamento di elementi in c.a. (4 ore); ii) Modellazione agli elementi finiti (FEM) dei rinforzi strutturali (2 ore).
  Periodo: II semestre 2017.

Attività Scientifica

Principali Aree di Ricerca

- Vulnerabilità delle costruzioni ad azioni prodotte da tsunami
- Fragilità fuori piano di tamponamenti intelaiati
- Adeguamento sismico e retrofitting di strutture in c.a. e acciaio
- Isolamento sismico di strutture in c.a. e acciaio
- Sistemi di dissipazione sismica tramite dissipatori ad attrito e fluido viscosi per strutture in c.a. e acciaio
- Modelli di capacità per elementi strutturali in c.a. rinforzati con incamiciatura in acciaio (Steel Jacketing) e materiali compositi (rinforzo con FRP)
- Valutazione delle performance di strutture realizzate con materiali Pultrusi.

Periodi di Permanenza all'Estero e in atenei di Università Italiane

- Visiting Research, 04/2016-11/2016
  Technische Universität München (DE)
  Supervisor: Prof. Oliver Fischer

- Visiting Research, 05/2017

Politecnico di Torino (IT)
Supervisor: Prof. Fabio Di Trapani

Partecipazione come Relatore a Conferenze Internazionali

- Conferenza internazionale "9th International Conference on Fibre-Reinforced Polymer (FRP) Composites in Civil Engineering (CICE 2018). Parigi, Francia. Presentazione della memoria dal titolo "Compressive Behavior of Concrete Columns Axially-Loaded Before CFRP-Wrapping. Remarks by Experimental-Numerical Investigation". Autori: **Ferrotto, M.F.**, Fischer, O., Niedermeier, R.
  dal 17-06-2018 al 19-06-2018.

- Conferenza internazionale "12th - Japanese-German Bridge Symposium, Munich, Germany. Presentazione della memoria dal titolo "Simulating CFRP-confinement of concrete bridge piers under sustained loads evaluation of the compressive capacity". Autori: **Ferrotto, M.F.**, Fischer, O., Niedermeier.
  Dal 04-09-2018 al 07-09-2018.

- Conferenza internazionale "COMPDYN 2021, 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, M. Fragiadakis (eds.)". Presentazione della memoria: The role of the sustained loads on the bearing capacity of reinforced concrete columns retrofitted by steel jackets. **Ferrotto, M.F.**, Pradhan, B, Cavaleri, L.: Streamed from Athens, Greece, 28–30 June 2021.

- Conferenza internazionale "REC2021. 9th International Workshop on Reliable Engineering Computing - Risk and Uncertainty in Engineering Computations". Presentazione della memoria: "*Behavior of structures equipped with variable friction dissipative systems"*. Autori: Cavaleri, L. Di Paola, M., **Ferrotto, M.F.**, Sucato, V. Virtual Conference: May 17-20, 2021.

Partecipazione come Relatore a Conferenze Nazionali

- XIV Convegno Nazionale ANIDIS, L'ingegneria Sismica in Italia, settembre 2015, L'Aquila, IT. Presentazione della memoria dal titolo " Influenza dei Fenomeni Attritivi nella Risposta Strutturale di Colonne in c.a. Rinforzate con Incamiciatura in Acciaio: Confronto numerico-sperimentale e Predizione Analitica della Capacità" . Autori: Campione, G., Cavaleri, L., Di Trapani, F., **Ferrotto M.F.**, Macaluso G., Papia M.
  dal 13-09-2015 al 17-09-2015

- Congresso AICAP CTE. Milano / Lecco. Presentazione della memoria dal titolo "Assessment of the load carrying capacity of reinforced concrete columns strengthened by steel cages/Specificità nella valutazione della capacità portante di colonne in calcestruzzo armato rinforzate con incamiciatura in acciaio". Autori: Campione, G., Cannella, F., Cavaleri, L., **Ferrotto, M.F.**, Papia, M.
  dal 13-06-2018 al 16-06-2018

Partecipazione ai Comitati Editoriali di Riviste

- Membro dell' Editorial Board della rivista internazionale "Earthquake Engineering" - Frontiers in Built Environment. ISSN: 2297-3362 (Online)
  dal 04-06-2020 a oggi

- Membro dell' Editorial Board della rivista internazionale "Advances in Civil Engineering", ISSN: 1687-8086 (Print), ISSN: 1687-8094 (Online). Editore: Hindawi
  dal 16-06-2020 a oggi

Attività di revisore per le seguenti riviste scientifiche internazionali

- AIMS Geosciences. ISSN 2471-2132;
- Materials MDPI. ISSN: 1996-1944
- Journal of Structural Engineering ASCE, ISSN: 0733-9399.
- Ocean Engineering, Elsevier, ISSN: 0029-8018.
- Engineering Structures, Elsevier, ISSN: 0141-0296.
- Construction and Building Materials - Journal – Elsevier. ISSN: 0950-0618
- Structures, Elsevier. ISSN: 2352-0124
- Mathematical Problems in Engineering, Hindawi, ISSN: 1563-5147
- The Open Construction and Building Technology Journal, Bentham Open, ISSN: 1874-8368.
- Earthquake Engineering and Engineering Vibration, Springer, ISSN: 1993-503X.
- Frontiers in Built Environment, section Earthquake Engineering
- Open Engineering, De Gruyter, ISSN 2391-5439
- Advances in Civil Engineering, Hindawi, ISSN: 1687-8086
- Computers and Structures, Elsevier, ISSN: 0045-7949.
- Engineering Science and Technology, an International Journal, Elsevier, ISSN: 2215-0986.
- Case Studies in Construction Materials, Elsevier. ISSN: 2214-5095
- Structural Engineering and Mechanics (Techno-Press), An International Journal. ISSN: 1225-4568.

	• Mathematical Biosciences and Engineering (MBE). ISSN (Online): 1551-0018 • Earthquake Engineering and Engineering Vibration. Springer
Partecipazione a gruppi di Ricerca Nazionali ed Internazionali	• Partecipazione al progetto di ricerca internazionale SIMIT "*Costituzione di un sistema integrato di protezione civile transfrontaliero Italo-Maltese*" – Leader Partner Regione Siciliana - Presidenza - Dipartimento della Protezione Civile – Partner: Università di Palermo, Dipartimento di Ingegneria Civile, Ambientale, Aerospaziale, dei Materiali. Responsabile per l'Università di Palermo Prof.Mario di Paola - Finanziamento erogato dalla Comunità Europea nell'ambito del P.O. Italia Malta 2007/2013 - Altri Partners: Università di Catania, Università di Malta, Protezione Civile di Malta. • Partecipazione alla ricerca internazionale dal titolo "*FRP Strengthening of Concrete Structures Subjected to Serviceability Loads: Effects of the Preload on the Confinement Mechanical Properties*" - Gruppo di ricerca: Prof. Oliver Fischer (Technische Universität München TUM), Dott. Ing. Roland Niedermeier (Technische Universität München TUM), Dott. Ing. Marco Filippo Ferrotto (Università degli Studi di Palermo), Prof. Liborio Cavaleri (Università degli Studi di Palermo). Durante l'attività il dott. Marco Filippo Ferrotto ha svolto un periodo di PhD visiting research della durata di 8 mesi presso la Technische Universität München TUM di Monaco di Baviera, Germania (aprile 2016-novembre 2016). • Componente dell'unità di ricerca nell'ambito della convenzione fra la Rete dei Laboratori Universitari di Ingegneria Sismica (RELUIS) e il dipartimento DICAM dell'Università di Palermo (responsabile locale prof. Piero Colajanni), nelle linee: a) strutture in cemento armato; b) divulgazione e formazione; c)TT1 Inventario delle tipologie strutturali edilizie esistenti; d) materiali innovativi per interventi su costruzioni esistenti dal 01-01-2017 al 31-12-2017 • Componente dell'unità di ricerca nell'ambito della convenzione fra la Rete dei Laboratori Universitari di Ingegneria Sismica (RELUIS) e il dipartimento DICAM dell'Università di Palermo (responsabile locale prof. Piero Colajanni), nelle linee: - Strutture in cemento armato - Materiali innovativi per interventi su applicazioni esistenti - Divulgazione e formazione - TT 1_Inventario delle tipologie strutturali edilizie esistenti_ITSEE

dal 01-01-2018 al 31-12-2018

- Partecipazione al gruppo di ricerca nell'ambito del Progetto SLIM - *Strutture Leggere Integrate e Modulari per diverse applicazioni incluse le emergenze*. Responsabile Scientifico: Prof. Antonino Valenza. P.O. FESR Sicilia 2007-2013. Nell'ambito della collaborazione al progetto di ricerca, il Dott. Marco Filippo Ferrotto è stato titolare di una borsa di studio della durata di sei mesi.
  dal 30-06-2018 al 30-12-2018

- Componente dell'Unità di Ricerca Politecnico di Torino – Università degli Studi di Palermo nell'ambito del progetto RELUIS 2019-2021 WP 10: Contributi normativi relativi a Costruzioni Esistenti in Muratura - SUBTASK 10.1.2 Muratura "non strutturale" (tamponature, partizioni).
  Responsabile nazionale: Prof. Guido Magenes
  Responsabile U.R. Dott. Ing. Fabio Di Trapani.
  dal 01-01-2019 a oggi

- Partecipazione al progetto di ricerca internazionale *SIMIT THARSY Tsunami Hazard Reduction System*. Problema della gestione congiunta delle emergenze derivanti da eventi sismici potenzialmente tsunami genetici, che potrebbero verificarsi nell'area del Mediterraneo che insiste tra il Canale di Sicilia e la costa sud-orientale sicula. INTERREG V-A ITALIA -MALTA 2014-2020. Capofila di Progetto: Regione Siciliana, Dipartimento della Protezione Civile. Partner di Progetto: - Università degli Studi di Palermo: Dipartimento di Ingegneria Civile, Ambientale, Aerospaziale, dei Materiali, - Università degli Studi di Catania: Dipartimento di Scienze Biologiche, Geologiche e Ambientali - Civil Protection Department, - University of Malta Faculty of Science/ Department of Geosciences
  Nell'ambito della collaborazione scientifica, il Dott. Marco Filippo Ferrotto è attualmente titolare di un Assegno di Ricerca annuale (Assegno di Tipologia B) dal titolo "Valutazione della vulnerabilità del costruito ad azioni prodotte da Tsunami".
  dal 20-10-2020 a oggi

- Partecipazione al progetto di ricerca internazionale LIMNADI: *integrazione muLti-scopo di piccoli Invasi collinari per la laMiNAzione Delle pIene*. Responsabile scientifico del progetto: Prof. Goffredo La Loggia Referente: Prof .Liborio Cavaleri. Nell'ambito del presente progetto, il Dott. Marco Filippo Ferrotto è stato titolare di un Assegno di Ricerca annuale (Assegno di Tipologia B) dal titolo "Effetti della variazione del livello di invaso sulla resistenza delle

	sponde in rilevato di piccoli serbatoi collinari". dal 19-06-2019 al 19-06-2020
Attività Organizzative	• Coordinatore e Chair della sessione speciale "ADVANCES IN COMPUTATIONAL MODELLING, EXPERIMENTAL TESTING AND OPTIMIZATION OF SEISMIC RETROFITTING" per la conferenza internazionale "8th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2021)". Coordinatori: Liborio Cavaleri, Marco Filippo Ferrotto (University of Palermo - ITALY), Fabio Di Trapani, Giuseppe Carlo Marano (Politecnico di Torino - ITALY) dal 28-06-2021 al 30-06-2021 • Componente della commissione "New RC Buildings", istituita nell'ambito del gruppo AICAP "Rapporti con l'Università". Presidente del gruppo AICAP Rapporti con l'Università: Prof. Giuseppe Quaranta dal 28-05-2020 a oggi
Pubblicazioni su Riviste Internazionali ISI	1. Pradhan, B., Sarhosis, V., **Ferrotto, M.F.**; Penava, D., Cavaleri, L. (2021). Prediction Equations for the Out-Of-Plane Capacity of Unreinforced Masonry Infill Walls Based on a Macro-element Model Parametric Analysis. Journal of Engineering Mechanics. 10.1061/(ASCE)EM.1943-7889.0001998. 2. **Ferrotto, M.F.**, Cavaleri, L. (2021). Masonry structures: A proposal of analytical generation of fragility functions for tsunami impact – Application to the Mediterranean coasts. Engineering Structures, 242, 112463. https://doi.org/10.1016/j.engstruct.2021.112463. 3. **Ferrotto, M.F.,** Di Paola, M., Cavaleri, L. (2021). Seismic behavior of structures equipped with variable friction dissipative (VFD) systems. Bull Earthquake Eng. https://doi.org/10.1007/s10518-021-01116-x. 4. **Ferrotto, M.F.**, Asteris, P.G., Cavaleri, L. (2020) Strategies of Identification of a Base-Isolated Hospital Building by Coupled Quasi-Static and Snap-Back Tests, Journal of Earthquake Engineering, DOI: 10.1080/13632469.2020.1824877; 5. Pradhan, B., Sarhosis, V., **Ferrotto, M.F.**; Penava, D., Cavaleri, L. (2021). Prediction Equations for the Out-Of-Plane Capacity of Unreinforced Masonry Infill Walls Based on a Macro-element Model Parametric Analysis. Journal of Engineering Mechanics. 10.1061/(ASCE)EM.1943-

7889.0001998.

6. Cavaleri L., Ciraolo G., **Ferrotto M. F.**, La Loggia G., Lo Re C., Manno G. (2020). Masonry structures subjected to tsunami loads: Modeling issues and application to a case study. STRUCTURES, vol. 27, p. 2192-2207, ISSN: 2352-0124, doi: 10.1016/j.istruc.2020.08.033

7. G. Campione, **M.F. Ferrotto**, M. Papia, "Flexural Response of RC Beams, Failing in Shear", Practice Periodical on Design and Construction ASCE 2020, vol. 25 (4): 04020028. https://doi.org/10.1061/(ASCE)SC.1943-5576.0000507.

8. F. Di Trapani, M. Malavisi, G.C. Marano, R. Greco, **M.F. Ferrotto**, "Optimal design algoritm for the seismic retrofitting of RC columns with steel jacketing technique", Procedia Manufactoring, 44(2020), 639-646.

9. L. Cavaleri, **M.F. Ferrotto**, F. Di Trapani, A. Vicentini. Vibration tests and structural identification of the bell tower of Palermo cathedral Open Construction & Building Technology Journal. DOI: 10.2174/1874836801913010319, 2019, 13, 319-330.

10. L. Cavaleri, M. Di Paola, **M.F. Ferrotto**, A. Valenza, Structural performances of pultruded GFRP emergency structures – Part 2: Full-scale experimental testing, Composite Structures, Volume 214, 15 April 2019, Pages 304-315.

11. L. Cavaleri, M. Di Paola, **M.F. Ferrotto**, T. Scalici, A. Valenza, Structural performances of pultruded GFRP emergency structures – Part 1: Experimental characterization of materials and substructure, Composite Structures, Volume 214, 15 April 2019, Pages 325-334.

12. F. Di Trapani; G. Bertagnoli; **M.F. Ferrotto**, Diego Gino, Empirical Equations for the Direct Definition of Stress–Strain Laws for Fiber-Section-Based Macromodeling of Infilled Frames, Journal of Engineering Mechanics ASCE 2018. DOI: 10.1061/(ASCE) EM.1943-7889.0001532.

13. P. G. Asteris, L. Cavaleri, **M.F. Ferrotto**, Equivalent Non-Linearization of Hysteretic Systems by Means of RPS, Open Construction and Building Technology Journal, DOI: 10.2174/1874836801812010319, 2018, 12, 319-333.

14. **M.F. Ferrotto**, L. Cavaleri, F. Di Trapani, FE modeling of Partially Steel-Jacketed (PSJ) RC columns using CDP model, Computers and Concrete, Vol. 22, No. 2 (2018) 143-152.

15. **M.F. Ferrotto**, O. Fischer, L. Cavaleri, A strategy for the

finite element modeling of FRP-confined concrete columns subjected to preload, Engineering Structures, 173 (2018), 1054-1067.

16. **M.F. Ferrotto**, L. Cavaleri, M. Papia, Compressive response of substandard steel jacketed RC columns strengthened under sustained loads: from the local to the global behavior. Construction and Building Materials, 179 (2018), 500-511.

17. G. Campione, F. Cannella, **M.F. Ferrotto**, M. Gianquinto, Compressive behavior of FRP externally wrapped R.C. column with buckling effects of longitudinal bars. Engineering Structures, 168 (2018) 809–818.

18. **M.F. Ferrotto**, O. Fischer, L. Cavaleri, Analysis-oriented stress–strain model of CRFP-confined circular concrete columns with applied preload, Mater. Struct. (2018) 51:44. https://doi.org/10.1617/s11527-018-1169-0.

19. G. Campione, F. Cannella, L. Cavaleri, **M. F. Ferrotto**, and M. Papia, Moment-Axial Domain of Corroded R.C. Columns. Springer International Publishing AG, part of Springer Nature 2018 M. di Prisco and M. Menegotto (Eds.): ICD 2016, LNCE 10, pp. 440–453, 2018. https://doi.org/10.1007/978-3-319-78936-1_32.

20. Cavaleri, L., Di Trapani, **Ferrotto, M.F.** (2017). Experimental determination of viscous dampers parameters in low velocity ranges. Ingegneria Sismica, 34(2), 64-74.

21. G. Campione, L. Cavaleri, F. Di Trapani, **M.F. Ferrotto**, Frictional effects on structural behavior of no-end-connected steel-jacketed RC columns: Experimental results and new approaches to model numerical and analytical response, J. Struct. Eng. ASCE 143 (2017) 04017070. DOI: 10.1061/(ASCE)ST.1943-541X.0001796.

22. **M.F. Ferrotto**, O. Fischer, R. Niedermeier, Experimental Investigation on the Compressive Behavior of Short Term Preloaded CFRP-Confined Concrete Columns, Struct. Concr. (2017) 1-14. DOI:10.1002/suco.201700072.

23. L. Cavaleri, F. Di Trapani, **M.F. Ferrotto**, L. Davì, Stress-Strain Models for Normal and High Strength Confined Concrete: Test and Comparisons of Literature Models Reliability in Reproducing Experimental Results, Ingegneria Sismica, 34, Special Issue B (2017) 114-137.

24. G. Campione, F. Cannella, L. Cavaleri, **M.F. Ferrotto**, "Moment-axial force domain of corroded. R.C. columns", Materials and Structures, Springer, 2017, 50:21.

25. G. Campione, L. Cavaleri, **M.F. Ferrotto**, G. Macaluso, M. Papia, "Efficiency of Stress-Strain Models of Confined Concrete With and Without Steel Jacketing to Reproduce Experimental Results", The Open Construction and Building Technology Journal, 2016, 10, (Suppl 1: M4) 65-86.

26. G. Alotta, L. Cavaleri, M. Di Paola, **M.F. Ferrotto**, "Solution for the Design and Increasing of Efficiency of Viscous Dampers", The Open Construction and Building Technology Journal, 2016, 10, (Suppl 1: M6) 106-121.

27. L. Cavaleri, F. Di Trapani, **M.F. Ferrotto**, "A new hybrid procedure for the definition of seismic vulnerability in Mediterranean cross-border urban areas", Journal of the International Society for the Prevention and Mitigation of Natural Hazards, Springer, November, 2016.

Lavori Scientifici in fase di pubblicazione su Riviste Internazionali ISI e Conferenze Internazionali/Nazionali

28. Cavaleri, L., **Ferrotto, M.F**., Valenza, A. Structural performances of composite pultruded GFRP emergency structures. Accepted for: CICE 2020. 10th International Conference on FRP Composites in Civil Engineering (CICE 2020), Istanbul June 30 – July 2 2021.

Pubblicazioni su Atti di Conferenze Internazionali

29. Pradhan, B, Cavaleri, L. Sarhosis, V., **Ferrotto, M.F**. Generation of out-of-plane fragility functions for in-plane damaged unreinforced masonry infills. Accepted for: COMPDYN 2021, 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, M. Fragiadakis (eds.) Streamed from Athens, Greece, 28–30 June 2021

30. **Ferrotto, M.F**., Pradhan, B, Cavaleri, L. The role of the sustained loads on the bearing capacity of reinforced concrete columns retrofitted by steel jackets. Accepted for: COMPDYN 2021, 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, M. Fragiadakis (eds.) Streamed from Athens, Greece, 28–30 June 2021.

31. Cavaleri, L. Di Paola, M., **Ferrotto, M.F**., Sucato, V. Behavior of structures equipped with variable friction dissipative systems. Accepted for: REC2021. 9th International Workshop on Reliable Engineering Computing - Risk and Uncertainty in Engineering Computations. Virtual Conference: May 17-20, 2021.

32. Basone, F., Cavaleri, L., & **Ferrotto, M.F.** (2019). Nonlinear

Response of RC Structures: Statistical Effects of Artificial Ground Motions. In ICOVP 2019 14th International Conference on Vibration Problems. 1-4 September 2019, Crete, Grece.

33. Borg, R., Cavaleri, L., **Ferrotto, M.F.**, La Mantia, F., & Liguori, V. (2019). A solution for quarry limestone dust recycling. In Materials in the Next Decade. 18-20 Settembre 2019, Favignana, Italy.

34. **Ferrotto, M.F.**, Cavaleri, L., Di Trapani, F., & Castaldo, P. (2019). Full scale tests of the base-isolation system for an emergency hospital. In COMPDYN 2019 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering - vol.1 (pp. 2012-2025). M. Papadrakakis, M. Fragiadakis (eds.). Crete, Greece, 24–26 June 2019.

35. **M.F. Ferrotto**, O. Fischer, R. Niedermeier, Simulating CFRP-confinement of concrete bridge piers under sustained loads: evaluation of the compressive capacity. In: 12th - Japanese-German Bridge Symposium, Munich, Germany, 4.9. - 7.9.2018.

36. **M.F. Ferrotto**, O. Fischer, R. Niedermeier, L. Cavaleri, Compressive behavior of concrete columns axially-loaded before cfrp-wrapping. remarks by experimental-numerical investigation. In: 9th International Conference on Fibre-Reinforced Polymer (FRP) Composites in Civil Engineering (CICE 2018), PARIS 17-19 JULY 2018.

37. L. Cavaleri, F. Di Trapani, **M.F. Ferrotto**, "Steel Jacketing of RC columns: Reliability of capacity laws for concrete", SBE MALTA 2016 International Conference, March 2016.

Pubblicazioni su Atti di Conferenze Nazionali

38. P. Castaldo, G. Alfano, G. Amendola, **M.F. Ferrotto**, "Hardening structures isolated by double sliding devices: seismic reliability-based design approach". XXVII CONGRESSO C.T.A., 3-5 ottobre 2019, Bologna, Italy.

39. F. Di Trapani, S. Cirellia, G. Bertagnoli, M. Malavisia, **M. F. Ferrotto**. Out-of-Plane fragility of infilled frames with and without prior damage. XVIII CONVEGNO ANIDIS, ASCOLI PICENO 2019. L'ingegneria sismica in Italia. 15-19 Settembre.

40. G. Campione, F. Cannella, L. Cavaleri, **M.F. Ferrotto**, M. Papia, Specificità nella valutazione della capacità portante di colonne in calcestruzzo armato rinforzate con incamiciatura in acciaio. In: Italian Concrete Days, Congresso AICAP CTE. Milano / Lecco 13-16 Giugno 2018.

41. Cannella, F., Cavaleri, L., Cucchiara, C., **Ferrotto, M.F.**, Papia, M. (2017). Axial compressive behavior of FRP/Steel-confined concrete with preload. Capacità in compressione di colonne in calcestruzzo confinato con FRP/Acciaio in presenza di precarico. In: Atti del XVI Convegno ANIDIS 2017: L'Ingegneria Sismica in Italia. 17-21 Settembre 2017, Pistoia, Italy.

42. G. Campione, L. Cavaleri, F. Di Trapani, **M.F. Ferrotto**, G. Macaluso, M. Papia, "Modelling Steel Jacketed RC Columns: Remarks by Experimental-Numerical Comparisons", OpenSees Days, 2nd Italian Conference, July 2015, Salerno, IT.

43. G. Campione, L. Cavaleri, F. Di Trapani, **M.F. Ferrotto**, G. Macaluso, M. Papia, "Influenza dei Fenomeni Attritivi nella Risposta Strutturale di Colonne in c.a. Rinforzate con Incamiciatura in Acciaio: Confronto numerico-sperimentale e Predizione Analitica della Capacità", XIV Convegno Nazionale ANIDIS, Settembre 2015, L'Aquila, IT.

44. G. Campione, F. Cannella, L. Cavaleri, **M.F. Ferrotto**, M. Papia, "Moment-axial force domain of corroded RC columns - Domini in pressoflessione per colonne in c.a. con armatura corrosa", Convegno Nazionale AICAP CTE, 26-29 Ottobre, 2016, Roma, Italy.

Tesi di Dottorato

45. **Ferrotto, M.F.** (2018). Compressive response of concrete columns under service conditions strengthened by confining devices: from the local to the global behavior. Università degli Studi di Palermo, Italia.

Indicatori

- SCOPUS
  H-index: 11, Citazioni: 301, Documenti: 30;
- GOOGLE SCHOLAR
  H-index: 11, Citazioni: 384, Documenti: 46

Specifiche esperienze professionali

- Attività di progettazione strutturale di una struttura reticolare in acciaio dal volume di 5000 metri cubi da adibire al Mercato Coperto di Ballarò a Piazza Carmine nell'ambito della "Collaborazione Scientifica e di Ricerca nel campo della Progettazione Strutturale della Sistemazione di Piazza del Carmine all'Albergheria nel Centro Storico di Palermo - Protocollo di intesa tra l'istituto autonomo per le case popolari (I.A.C.P.) – Palermo e il Dipartimento di Ingegneria dell'Università degli studi di Palermo".
  Responsabili:
  -Prof. Ing. Lidia La Mendola
  -Ing. Marco Filippo Ferrotto
  dal 02-10-2018 al 02-02-2019

- Attività di verifica di agibilità di edifici danneggiati dal sisma catanese del dicembre 2018, per conto della Protezione Civile nazionale e del ReLUIS. Comuni presso i quali si è svolta l'attività: Santa Venerina (CT)
  dal 27-12-2018 al 29-12-2018

- Incarico di consulenza tecnica per la revisione dei calcoli statici delle strutture del policlinico P. Giaccone (Palermo), oggetto di declassamento della resistenza dei calcestruzzi. Verifica e valutazione dei parametri prestazionali delle normative adottate in sede di progetto, ma anche la riduzione in termini prestazionali delle strutture sotto il profilo statico e della durabilità. Azienda: Università degli Studi di Palermo - Settore Appalti Opere e Lavori, Palermo (Italia).
  dal 01-05-2019 al 20-06-2019

- Incarico di consulenza tecnica per il danneggiamento di pali eolici nel comune di Buseto Palizzolo (TP) per danni da fatica oligociclica indotta da fenomeni di risonanza. Incarico assegnato dalla società Helios srl.
  dal 01-06-2019 al 25-06-2019

- Svolgimento attività progettuale per la realizzazione di un sottopasso ferroviario nel Comune di Terrasini (PA). Incarico assegnato dalla società Volo Engineering and Consulting S.R.L.
  dal 01-11-2019 al 28-02-2020

- Incarico di consulenza tecnica per lo svolgimento di verifiche strutturali di silos in acciaio per lo stoccaggio di grano nel comune di Ravanusa (AG) soggetti ad azioni eccezionali quali sovrappressioni dovute all'innesco dell'atmosfera esplosiva causata dalle polveri di grano – verifica strutturale dei silos vicini a seguito delle sovrapressioni generate dall'esplosione.
  Committente: Calà Srl, via Carlo Alberto dalla Chiesa 23/l 93100 Caltanissetta
  dal 04-05-2020 al 25-05-2020

- Incarico di Consulenza tecnica per la valutazione della capacità statica e dinamica del Campanile della Chiesa Sacro Cuore di Gesù in Agrigento nei confronti dei fenomeni aerodinamici e aeroelastici. Incarico conferito da: Dott. Ing. Mario Li Causi
  dal 26-10-2020 a 26-11-2020

- Attività di progettazione di sistemi di monitoraggio statico e dinamico per ponti e viadotti siciliani nell'ambito della "*Gara europea a procedura aperta per l'accordo quadro quadriennale per l'esecuzione dei lavori di manutenzione*

	straordinaria per il risanamento strutturale di opere d'arte su tutto il territorio nazionale. appalto suddiviso in n. 24 lotti.". Lotto n°24. Incarico assegnato dalla società Volo Engineering and Consulting S.R.L dal 27-12-2020 a 30-01-2021 • Svolgimento attività progettuale e di verifica delle opere geotecniche per il consolidamento di un tratto stradale della SS290 di Alimena (PA) soggetta a fenomeni di dissesto idrogeologico. Incarico assegnato dalla società Volo Engineering and Consulting S.R.L. dal 01-03-2021 al 01-05-2021 • Svolgimento attività progettuale e di verifica delle opere geotecniche per l'ampliamento della carreggiata da realizzare nel Comune di Barlassina in Via XXV Aprile, ovvero il ramo 34.3 – Ovest (Provincia di Monza e della Brianza). Incarico assegnato dalla società Volo Engineering and Consulting S.R.L. dal 07-04-2021 al 30-04-2021 • Svolgimento attività progettuale per il progetto definitivo dei lavori di demolizione e ricostruzione del ponte al km 25+267 della SS340 dir in comune di Sorico (CO). Incarico assegnato dalla società Volo Engineering and Consulting S.R.L. dal 01-09-2021 al 08-10-2021
Altri Titoli	Iscritto dal 2015 all' Albo Provinciale dell'Ordine degli Ingegneri della Provincia di Palermo (Albo A - N. 9310. ordine.ingpa.com).
Competenze Linguistiche	Certificazione Linguistica di Lingua Tedesca Deutsch als Fremdsprache, A1.1 plus A1.2, TUM Technische Universität München (DE) (luglio 2016).
Competenze Informatiche	• Sistemi Operativi: Microsoft Windows, Mac OS X. • Linguaggi di Programmazione: Matlab, Wolfram Mathematica, FORTRAN. • Software Multifisici: COMSOL Multiphysics, Simulia ABAQUS CAE. • Productivity suite: Open Office, Microsoft Office. • Software di Grafica e CAD: Adobe Photoshop, AutoCAD, Grapher, Sketchup. • Software per il calcolo strutturale: ACCA Edilus, Stacec FaTA-E e VEM nl, OpenSees (Open System for Earthquake Engineering Simulation), SAP 2000 nonlinear, Seismostruct (Seismosoft), STS CDS.

(Autocertificazione ai sensi degli artt. 46 e 47 del D.P.R. 28/12/2000 n°445)

Il sottoscritto MARCO FILIPPO FERROTTO, sotto la propria responsabilità e consapevole delle sanzioni penali previste dall'art.76 del D.P.R n°445/2000, dichiara che le informazioni riportate nel seguente curriculum vitae corrispondono a verità.

Palermo, *21/10/2021*

GIOVANNI RINALDIN
Curriculum Vitae

General Information

Full Name	Giovanni RINALDIN
Citizenship	Italian
Spoken Languages	Italian, English

Education

Type	Year	Institution	Notes (Degree, Experience,…)
University graduation	2009	Univ. of Trieste	Degree: 110/110 cum laude, thesis on non-linear analysis of masonry structures
Post-graduate studies	2011	Univ. of Trieste	Second level Master on seismic engineering "MUPAC"
PhD	2013	Univ. of Trieste	With a thesis on "Non-linear analysis and modelling of masonry and timber"
Specialty			
Pre-doctorate training			
Licensure 01	2009	Chartered Civil Engineer	Enrolled in the Engineering Association of Treviso, no. A3344
Licensure 02			

Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
2013	2020	Faculty of Architecture, Univ. of Trieste	Contract professor for the academic course of "Theory of structure"
2019	2019	Scuola di Dottorato in Ingegneria Civile-Ambientale e Architettura, Univ. of Trieste	Course owner on "Non-Linear Analysis of Masonry Structures"
2013	2015	Faculty of Architecture, Univ. of Trieste	Coordinator for the academic course "Laboratorio di Materiali e Modelli"
2011	--	Faculty of Engineering, Univ. of Trieste	Faculty Expert in "Building engineering"
2010	2016	Univ. of Trieste	Assistant supervisor in many MSc theses
2009	2016	Universities of Trieste and Sassari	Research fellow

IIIB – Other Appointments

Start	End	Institution	Position
2020	--	Tribunale di Treviso	Enrolment in list of "CTU"
2018	--	NextFEM SRLS	Founder, R&D director
2012	--	DPC - ReLUIS	Voluntary technician for post-earthquake inspections
2011	2012	Freelance professional	Professional experience: seismic retrofitting of FVG Airport
2014	2016	Freelance professional	Professional experience: seismic design of a commercial mall

Teaching experience

Year	Institution	Lecture/Course
2020	-	Author of *"L'essenziale di Statica per corsi universitari in Architettura"*, ISBN 979-8633720501
2013-2016	Faculty of Architecture, Univ. of Trieste	Theory of structure
2014-2015	Faculty of Engineering, Univ. of Trieste	Teaching assistant for the course of "Rational Mechanics"
2011-2016	Faculty of Engineering, Univ. of Trieste	Teaching assistant for the academic course of "Theory of structure" and "Steel constructions"

Society memberberships, Awards and Honors

Year	Title
2015	First prize in ICT Ideas section of Start Cup FVG Competition
2013	Prize for scientific paper from "AGLC - Associazione per la Geofisica Licio Cernobori"
2012	Prize for the MSc degree thesis from the Engineering Association of Treviso
2009	Member of Engineering Association of Treviso

Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2011	ReLUIS research project	Steel-concrete composite structures	Grants to the research team - Standard monthly wage for research fellowship (I)
2012-2016	Numerical modelling of XLam and light-frame timber structures	OptimberQuake Project - Optimization of Timber Multi-storey Buildings against Earthquake impact	Grants to the research team - Standard monthly wage for research fellowship (I)

Research Activities

Keywords	Brief Description
Seismic design Retrofit of existing structures Timber structures Masonry structures Inelastic spectra	My field of expertise is related to seismic design and numerical non-linear modelling of structures, with particular reference to timber and masonry buildings. I developed a non-linear model for the solvers Abaqus, OpenSees and OOFEM for the steel connections in timber structures. I spent a short period of time at Imperial College, London, to implement my cyclic modelling for masonry structures in the solver ADAPTIC and to develop a software for meshing mesoscale masonry models. I worked also on the evaluation of inelastic spectra for different kind of buildings, evaluating the accuracy of N2 method vs. Equivalent Linearization Procedure based on equivalent damping.