

List of Publications

Journal Articles

- 1 **Brizzi, S.**, Becker, T., Faccenna, C., Behr, W., van Zelst, I., Dal Zilio, L., & van Dinther, Y. (2021). The role of sediment accretion and buoyancy on subduction dynamics and geometry. *Geophysical Research Letters*, 48(20), e2021GL096266. [doi:doi.org/10.1029/2021GL096266](https://doi.org/10.1029/2021GL096266)
- 2 **Brizzi, S.**, van Zelst, I., Funiciello, F., Corbi, F., & van Dinther, Y. (2020). How sediment thickness influences subduction dynamics and seismicity. *Journal of Geophysical Research: Solid Earth*, 125(8), e2019JB018964. [doi:doi.org/10.1029/2019JB018964](https://doi.org/10.1029/2019JB018964)
- 3 Corbi, F., Sandri, L., Bedford, J., Funiciello, F., **Brizzi, S.**, Rosenau, M., & Lallemand, S. (2019). Machine learning can predict the timing and size of analog earthquakes. *Geophysical Research Letters*, 46(3), 1303–1311. [doi:doi.org/10.1029/2018GL081251](https://doi.org/10.1029/2018GL081251)
- 4 **Brizzi, S.**, Sandri, L., Funiciello, F., Corbi, F., Piromallo, C., & Heuret, A. (2018). Multivariate statistical analysis to investigate the subduction zone parameters favoring the occurrence of giant megathrust earthquakes. *Tectonophysics*, 728, 92–103. [doi:doi.org/10.1016/j.tecto.2018.01.027](https://doi.org/10.1016/j.tecto.2018.01.027)
- 5 Corbi, F., Funiciello, F., **Brizzi, S.**, Lallemand, S., & Rosenau, M. (2017). Control of asperities size and spacing on seismic behavior of subduction megathrusts. *Geophysical Research Letters*, 44(16), 8227–8235. [doi:doi.org/10.1002/2017GL074182](https://doi.org/10.1002/2017GL074182)
- 6 **Brizzi, S.**, Funiciello, F., Corbi, F., Di Giuseppe, E., & Mojoli, G. (2016). Salt matters: How salt affects the rheological and physical properties of gelatine for analogue modelling. *Tectonophysics*, 679, 88–101. [doi:doi.org/10.1016/j.tecto.2016.04.021](https://doi.org/10.1016/j.tecto.2016.04.021)

Book chapters

- 1 **Brizzi, S.** (2019). On the relationships between geodynamics and megathrust seismicity. In R. M. in Earth Systems & E. Sciences (Eds.). [doi:doi.org/10.1016/B978-0-12-409548-9.11666-5](https://doi.org/10.1016/B978-0-12-409548-9.11666-5)

Doctoral Thesis

- 1 **Brizzi, S.** (2017). *Analysis of the controlling factors able to generate mega-earthquakes along the subduction thrust fault* (Doctoral dissertation, University of Roma Tre, Department of Science).

- Lanari R.** (2018). Topography and Exhumation of the High Atlas (Morocco). *PhD thesis*.
- Lanari R.***, Faccenna, C., Fellin, M. G., Essaifi, A., Nahid, A., Medina, F., & Youbi, N. (2020). Tectonic Evolution of the Western High Atlas of Morocco: Oblique Convergence, Reactivation, and Transpression. *Tectonics*, 39(3), e2019TC005563.
- Lanari R.***, Fellin, M. G., Faccenna, C., Balestrieri, M. L., Pazzaglia, F. J., Youbi, N., & Maden, C. (2020). Exhumation and Surface Evolution of the Western High Atlas and Surrounding Regions as Constrained by Low-Temperature Thermochronology. *Tectonics*, 39(3), e2019TC005562.
- Lanari R.***, Faccenna, C., Benedetti L., Sembroni A., Bellier O., Menichelli I., Primerano P. & Molin P. (2021). Formation and persistence of extensional internally-drained basins: the case of the Fucino basin (Central Apennines, Italy). *Tectonics*
- Fellin M.G.*, San Jose M., Faccenna C., Willett S.D., Cosentino D., **Lanari R.**, Gourbet L., & Maden C., (2021). Transition from slab roll-back to slab break-off in the central Apennines: constraints from the stratigraphic and thermochronologic record. *Geological Society of America Bulletin*.
- Casalini M.*, Tommasini S., Guarnieri L., Avanzinelli R., **Lanari R.**, Mattei M., & Conticelli S. (2021). Subduction-related lamproitic signature in intraplate-like volcanic rocks: the case study of the Tallante alkali basalts, Betic Chain, South-Eastern Spain. *Italian Journal of Geoscience*.
- Lanari R.***, Reitano R., Giachetta E., Pazzaglia F.J., Faccenna, C., Clementucci R., & Fellin M. G., (2022). Is the Anti Atlas of Morocco still uplifting? *Journal of Africa Earth Science*.
- Reitano R.*, Faccenna C., Funicello F., Corbi F., Sternai P., Willett S.D., Sembroni A., & **Lanari R.**, (2022). Sediment recycling and the evolution of analogue orogenic wedges. *Tectonics*.
- Lanari R.***, Fellin, M. G., Faccenna, C., Balestrieri, M. L., Pazzaglia, F. J., Youbi, N., & Maden, C. (2018). Exhumation and Topography of the High Atlas (Morocco). *EGU Abstract*
- Lanari R.***, Fellin, M. G., Faccenna, C., Balestrieri, M. L., Pazzaglia, F. J., Youbi, N., & Maden, C. (2018). Control of the inherited structures on the Miocene orogenic evolution of the High Atlas (Morocco). *SGI Abstract*
- Lanari R.***, Faccenna, C., Fellin, M. G., Essaifi, A., & Youbi, N. (2019). Cenozoic tectonic evolution of the High Atlas of Morocco: oblique compression, reactivation and strain partitioning. *EGU Abstract*
- Lanari R.***, Faccenna, C., Natali C., Uluocak Şengül E., Fellin M. G., Becker T.W., Gogus O., Youbi N, Clementucci R. & Conticelli S. (2022). Mantle dynamics and intraplate orogeny: The Atlas of Morocco. *EGU Abstract*

DATE: 30/08/2022

List of publications – Marco Meschis

Citations: 102 (Scopus); 124 (Scholar)

H-Index: 6 (Scopus); 6 (Scholar)

ORCID: 0000-0001-9144-3031

GOOGLE SCHOLAR: <https://scholar.google.com/citations?user=RfY2o8UAAAAJ&hl=en>

Published/Accepted:

9. 2022 - Mildon, Z., Roberts, G.P., Faure Walker, J., Beck, J., Papanikolaou, I., Michetti, A.M., Toda, S., Iezzi, F., Campbell, L., McCaffrey, K., Shanks R., Sgambato, C., Robertson, J., **Meschis, M.**, Vittori, E. - Surface Faulting earthquake clustering controlled by fault/shear-zone interactions.

(accepted for a publication) *Nature Communications*.

8. 2021 - De Santis, V., Scardino, G., Meschis, M., Ortiz, J.E., Sánchez-Palencia, Y. and Caldara, M. - Refining the middle-late Pleistocene chronology of marine terraces and uplift history in a sector of the Apulian foreland (southern Italy) by applying a synchronous correlation technique and amino acid racemization to *Patella* spp. and *Thetystrombus latus*. *Italian Journal of Geosciences*, 140(3), pp.438-463. <https://doi.org/10.3301/IJG.2021.05>

7. 2020 - **Meschis, M.**, Scicchitano, G., Roberts, G.P., Robertson, J., Barreca, G., Monaco, C., Spampinato, C., Sahy, D., Antonioli, F., Mildon, Z.K., Scardino, G. - Regional deformation and offshore crustal local faulting as combined processes to explain uplift through time constrained by investigating differentially-uplifted Late Quaternary palaeoshorelines: the foreland Hyblean Plateau, SE Sicily.

Tectonics. <https://doi.org/10.1029/2020TC006187>

6. 2020 - Robertson, J., Roberts, G.P., Iezzi, F., **Meschis, M.**, Gheorghiu, D., Bristow, C., Sgambato, C. - Distributed normal faulting in the tip zone of the South Alkyonides Fault System, Gulf of Corinth, constrained using ³⁶Cl exposure dating of Late-Quaternary wave-cut platforms.

Journal of Structural Geology, 36, <https://doi.org/10.1016/j.jsg.2020.104063>

5. 2019 - **Meschis, M.**, Roberts, G.P., Mildon, Z.K., Robertson, J., Michetti, A.M., Faure Walker, J. P. - Slip on a mapped normal fault for the 28th December 1908 Messina earthquake (Mw 7.1) in Italy.

Scientific Reports, 9, <https://doi.org/10.1038/s41598-019-42915-2>

Top 100 downloaded Earth science papers for Scientific Reports in 2019.

(<https://www.nature.com/collections/agejihhehi>)

4. 2019 - Robertson, J., **Meschis, M.**, Roberts, G.P., Ganas, A., Gheorghiu, D. - Temporally constant Quaternary uplift rates in south central Crete, Greece, and their relationship with active normal faults in the upper plate of the Hellenic subduction zone, constrained with in situ ³⁶Cl cosmogenic exposure dating.

Tectonics, 38, 1189-1222. <https://doi.org/10.1029/2018TC005410>

3. 2018 - **Meschis, M.**, Roberts, G.P., Robertson, J., Briant, R.M. - The relationships between regional Quaternary uplift, deformation across active normal faults and historical seismicity in the upper plate of subduction zones: The Capo D'Orlando Fault, NE Sicily.

Tectonics, 37, 1231-1255. <https://doi.org/10.1029/2017TC004705>

2. 2018 - Pedoja, K., Jara-Muñoz, J., De Gelder, G., Robertson, J., **Meschis, M.**, Delcaillau, B., Dugué, O., Authemayou, C., Bessinx, P., Poprawski, Y., Benabdelouahed, M., Nexer, M., Pinel, B., Husson, L., Regard, V., Menier, D. - Neogene - Quaternary slow coastal uplift of Western Europe through the perspective of sequences of strandlines from the Cotentin Peninsula (Normandy, France).

Geomorphology, 78, 338-356. <https://doi.org/10.1016/j.geomorph.2017.11.021>





1. 2013 - Roberts, G.P., **Meschis, M.**, Houghton, S., Underwood, C., Briant, R. M. - The implications of revised Quaternary palaeoshoreline chronologies for the rates of active extension and uplift in the upper plate of subduction zones.
Quaternary Science Reviews, 78, 169-187. <https://doi.org/10.1016/j.quascirev.2013.08.006>

In progress:





- **Meschis, M.**, Teza, G., Serpelloni, E., Elia, L., Lattanzi, G., Di Donato, M., Castellaro, S. - Refining rates of active crustal deformation in the upper plate of subduction zones, implied by geological and geodetic data: The E-dipping West Crati Fault, southern Italy. (*under review, Remote Sensing*).
- De Santis, V., Scardino, G., Scicchitano, G., **Meschis, M.**, Montagna, P., Pons-Branchu, E., Ortiz, J.E., Sánchez-Palencia, Y. and Caldara, M. - Middle-late Pleistocene chronology of palaeoshorelines and uplift history in a low-rising to stable foreland: overprinting and reoccupation. (*under review, Geomorphology*).
- **Meschis, M.**, Roberts, G.P., Robertson, J., Mildon, Z.K., Sahy, D., Goswami, R., Sgambato, C., Faure Walker, J., Michetti, A.M. and Iezzi, F. Out of Phase Quaternary Uplift-Rate Changes Reveal Normal Fault Interaction, Implied by Deformed Marine Palaeoshorelines, in Southern Italy (*under review, Geomorphology*).
- **Meschis, M.**, Roberts, G.P., Sgambato, C., Michetti, A.M., Livio, F., Mildon, Z. - Empirical correlations between fault slip-rates and fault lengths in extensional regions: The Calabrian-Peloritani Arc (southern Italy) as case-study. (*in prep. - Target journal: Geophysical Research Letters*).

Silvia Brizzi, Ph.D.

Employment History





- 2022 – ...  **Postdoctoral Fellow**, *Department of Science*, University of Roma Tre
Structuring and consolidation of the EPOS ITA Labs community
• Develop and manage digital content for TCS Multi-scale Laboratories pages of EPOS ITA website
• Coordinate website TCS Multi-Scale Laboratories teams
Advisor: F. Funiciello
- 2020 – 2022  **Postdoctoral fellow**, *Jackson School of Geosciences*, UT Austin
Numerical modeling of long-term subduction dynamics.
Advisors: TW. Becker & C. Faccenna
- 2018 – 2020  **Postdoctoral fellow**, *SCVSA Department*, University of Parma
Rheological characterization of magnetorheological materials for analog modeling
Advisor: F. Storti
- 2017 – 2018  **Postdoctoral fellow**, *Department of Science*, University of Roma Tre
Analog and numerical modeling of megathrust seismicity
Advisor: F. Funiciello

Education

- 2014 – 2017  **Ph.D.** in Earth Sciences (with distinction), *Department of Science*, University of Roma Tre
Thesis title: *Analysis of the controlling factors able to generate mega-earthquakes along the subduction thrust fault*
Supervisors: F. Funiciello, F. Corbi, Y. van Dinther, L. Sandri, A. Heuret
- 2014  **Professional Geologist licensing examination**, *Department of Science*, University of Roma Tre
- 2011 – 2014  **M.Sc.** in Earth Sciences (cum laude), *Department of Science*, University of Roma Tre
Thesis title: *Mega-earthquakes: analog modelling of the subduction thrust fault seismicity*
Supervisors: F. Funiciello, F. Corbi
- 2007 – 2011  **B.Sc.** in Earth Sciences (cum laude), *Department of Science*, University of Roma Tre

Research Publications

Journal Articles

- 1 **Brizzi, S.**, Becker, T., Faccenna, C., Behr, W., van Zelst, I., Dal Zilio, L., & van Dinther, Y. (2021). The role of sediment accretion and buoyancy on subduction dynamics and geometry. *Geophysical Research Letters*, 48(20), e2021GL096266.
 doi:doi.org/10.1029/2021GL096266
- 2 **Brizzi, S.**, van Zelst, I., Funiciello, F., Corbi, F., & van Dinther, Y. (2020). How sediment thickness influences subduction dynamics and seismicity. *Journal of Geophysical Research: Solid Earth*, 125(8), e2019JB018964.
 doi:doi.org/10.1029/2019JB018964
- 3 Corbi, F., Sandri, L., Bedford, J., Funiciello, F., **Brizzi, S.**, Rosenau, M., & Lallemand, S. (2019). Machine learning can predict the timing and size of analog earthquakes. *Geophysical Research Letters*, 46(3), 1303–1311.
 doi:doi.org/10.1029/2018GL081251
- 4 **Brizzi, S.**, Sandri, L., Funiciello, F., Corbi, F., Piromallo, C., & Heuret, A. (2018). Multivariate statistical analysis to investigate the subduction zone parameters favoring the occurrence of giant megathrust earthquakes. *Tectonophysics*, 728, 92–103.  doi:doi.org/10.1016/j.tecto.2018.01.027
- 5 Corbi, F., Funiciello, F., **Brizzi, S.**, Lallemand, S., & Rosenau, M. (2017). Control of asperities size and spacing on seismic behavior of subduction megathrusts. *Geophysical Research Letters*, 44(16), 8227–8235.
 doi:doi.org/10.1002/2017GL074182
- 6 **Brizzi, S.**, Funiciello, F., Corbi, F., Di Giuseppe, E., & Mojoli, G. (2016). Salt matters: How salt affects the rheological and physical properties of gelatine for analogue modelling. *Tectonophysics*, 679, 88–101.
 doi:doi.org/10.1016/j.tecto.2016.04.021

Book chapters

- 1 **Brizzi, S.** (2019). On the relationships between geodynamics and megathrust seismicity. In R. M. in Earth Systems & E. Sciences (Eds.). [doi:doi.org/10.1016/B978-0-12-409548-9.11666-5](https://doi.org/10.1016/B978-0-12-409548-9.11666-5)

In Preparation

- 1 **Brizzi, S.**, Cavozi, C., & Storti, F. (in prep). *Smart materials for experimental tectonics: 2. viscoelastic behavior of magnetorheological silicones.*
- 2 **Brizzi, S.**, Storti, F., & Cavozi, C. (in prep). *Smart materials for experimental tectonics: 1. viscous behavior of magnetorheological silicones.*
- 3 McArthur, A., Brown, A., van Zelst, I., **Brizzi, S.**, & McCaffrey, W. (in prep). *Trench sedimentation control on convergent margin deformation and seismicity.*
- 4 Menichelli, I., Corbi, F., **Brizzi, S.**, Lallemand, S., van Rijsingen E, & F, F. (in prep). *The role of seamount subduction on megathrust seismicity: Insights from analogue models.*
- 5 van Zelst, I., **Brizzi, S.**, van Rijsingen, E., Funciello, F., & van Dinther, Y. (in prep). *Investigating global correlations between tsunamis, earthquake and subduction zone characteristics.*

Conference Proceedings

- 1 **Brizzi, S.**, Becker, T., Faccenna, C., Behr, W., van Zelst, I., Dal Zilio, L., & van Dinther, Y. (2021). The influence of sediment accretion and transport on subduction zone dynamics. In *Agu Fall Meeting Abstracts* (Vol. 2021, T25C–o182).
- 2 **Brizzi, S.**, Becker, T. W., Faccenna, C., van Zelst, I., & van Dinther, Y. (2020). The influence of sediment thickness on subducting plate velocity. In *Agu Fall Meeting Abstracts* (Vol. 2020, T057–o3).
- 3 **Brizzi, S.**, van Dinther, Y., van Zelst, I., Funciello, F., & Corbi, F. (2019). Sediment thickness and its influence on subduction dynamics and seismicity. In *Agu Fall Meeting Abstracts* (Vol. 2019, T31C–o4).
- 4 van Dinther, Y., van Zelst, I., Brizzi, S., van Rijsingen, E., & Funciello, F. (2019). Tsunamigenic earthquakes preferentially occur in sediment-starved subduction zones with a rough incoming seafloor. In *Agu Fall Meeting Abstracts* (Vol. 2019, U13C–o9).
- 5 van Zelst, I., **Brizzi, S.**, van Dinther, Y., Funciello, F., & Heuret, A. (2018). The influence of subduction zone tectonics on earthquake-generated tsunamis. In *Egu General Assembly Conference Abstracts* (p. 7379).
- 6 **Brizzi, S.**, Funciello, F., Corbi, F., Sandri, L., van Zelst, I., Heuret, A., ... van Dinther, Y. (2017). What favors the occurrence of subduction mega-earthquakes? In *Egu General Assembly Conference Abstracts* (p. 557).
- 7 **Brizzi, S.**, van Zelst, I., van Dinther, Y., Funciello, F., & Corbi, F. (2017). How long-term dynamics of sediment subduction controls short-term dynamics of seismicity. In *Agu Fall Meeting Abstracts* (Vol. 2017, T11E–o3).
- 8 Corbi, F., Funciello, F., **Brizzi, S.**, & Lallemand, S. (2017). Asperities synchronization and triggering of subduction mega-earthquakes: Insights from 3d analog models. In *Egu General Assembly Conference Abstracts* (p. 4884).
- 9 Corbi, F., Funciello, F., **Brizzi, S.**, Lallemand, S., & Rosenau, M. (2017). Control of asperities size and spacing on seismic behavior of subduction megathrusts: Insights from seismo-tectonic scale models. In *Agu Fall Meeting Abstracts* (Vol. 2017, T31A–o607).
- 10 van Zelst, I., **Brizzi, S.**, van Dinther, Y., Heuret, A., & Funciello, F. (2017). Identifying tectonic parameters that influence tsunamigenesis. In *Egu General Assembly Conference Abstracts* (p. 14484).
- 11 **Brizzi, S.**, Funciello, F., Corbi, F., Di Giuseppe, E., & Mojoli, G. (2016). Salt matters: Modifying gelatine rheology for subduction thrust fault seismicity models. In *Egu General Assembly Conference Abstracts* (p. 618).
- 12 Corbi, F., Funciello, F., **Brizzi, S.**, van Rijsingen, E., Lallemand, S., Dominguez, S., & Cattin, R. (2016). Control of barrier width on asperities synchronization and genesis of great megathrust earthquakes. In *Proceedings of GeoMod2016* (Vol. 2016, S4–7).

- 13 Corbi, F., Funiciello, F., **Brizzi, S.**, & Lallemand, S. (2016). Asperities interaction through subsequent seismic cycles: Insights from 3d analog models. In *Agü Fall Meeting Abstracts* (Vol. 2016, T13A–2673).
- 14 van Zelst, I., Brizzi, S., Heuret, A., Funiciello, F., & van Dinther, Y. (2016). Identifying tectonic parameters that affect tsunamigenesis. In *Agü Fall Meeting Abstracts* (Vol. 2016, NH43A–1803).
- 15 **Brizzi, S.**, Corbi, F., Funiciello, F., & Moroni, M. (2015). Analogue models of subduction megathrust earthquakes: Improving rheology and monitoring technique. In *Egu General Assembly Conference Abstracts* (p. 6399).
- 16 **Brizzi, S.**, Corbi, F., Funiciello, F., & Moroni, M. (2014). Analogue models of subduction megathrust earthquakes: Analyzing the viscoelastic rheological parameter space with an innovative monitoring technique. (Vol. Seismo-Tectonics, pp. 14–16).

Mentoring, Outreach & Synergistic activities

Students

- 2019 ■ Claudio Lusuardi, **M.Sc. thesis co-supervisor**, University of Parma
- 2017 ■ Margherita Fittipaldi, **M.Sc. level, internship supervisor**, University of Roma Tre
- 2016 ■ Erika Cipettini, **M.Sc. level, internship supervisor**, University of Roma Tre
- David Scaccia, **M.Sc. level, internship supervisor**, University of Roma Tre

Outreach

- 2021 ■ Mentor for the Undergraduate Research Traineeship Experience
The University of Texas at Austin
- 2019 – ... ■ Member of the ECS Tectonophysics Revival Task Force (AGU)
- 2018 – ... ■ Social Media manager for EGU Tectonics & Structural Geology division
- 2014 – ... ■ Hands-on activities during the European Researchers' Night
(University of Roma Tre and University of Parma)

Synergistic activities

- 2021 – ... ■ Topic Editor, *Frontiers in Earth Science*
- 2019 – ... ■ Judge for Outstanding Student Poster Awards (AGU and EGU)
- 2018 – ... ■ *JGR: Solid Earth, Tectonics, Tectonophysics, EGU Solid Earth, G3, Science Advances*
- 2021 – 2022 ■ Session convener: EGU2022: Inter- and intraplate seismicity in subduction zones, AGU2021: Unusual subduction processes

Teaching

- 2021 – 2022 ■ **Guest lecturer**, Tectonics and Geodynamics (graduate level), UT Austin
- 2019 – 2022 ■ **Teaching assistant**, Introduction to MATLAB (graduate level), University of Parma
- 2020 ■ **Guest lecturer**, Marine Tectonics (graduate level), UT Austin
- 2015 – 2017 ■ **Guest lecturer**, Experimental Tectonics (M.Sc. level), University of Roma Tre
- 2016 ■ **Guest lecturer**, Geodynamics (M.Sc. level), University of Roma Tre
- **Guest lecturer**, Summer School: "Thermal convection in complex fluids: from laboratory to mantle dynamics" (graduate level), Université Paris-Sud

Awards & Support

- 2021 ■ **UT Staff Council Professional Development Grant**, (1500), UT Austin
- 2018 ■ **Renato Funiciello Award**, – Best PhD thesis, Dept. Science, University of Roma Tre
- 2017 ■ **Early Career Scientist's Roland Schlich Travel Grant**, European Geoscience Union
- **AGU Fall Meeting General Student Travel Grant**, American Geophysical Union

Skills

Languages	■ Full professional proficiency in Italian (native) and English Basic command of French and Spanish
Graphic Software	■ Adobe Illustrator, Corel Draw, Affinity Publisher
Analog modeling	■ Preparation and handling of different types of analog materials (e.g., gelatin, silicone, glucose syrup, sand); extensive experience with experimental setups for crustal- and lithospheric-scale models, monitoring systems (e.g., high-speed cameras, laser scanner), measuring systems of material properties (e.g., rheometer, densimeter), image analysis techniques (e.g., PIV and PTV)
Numerical modeling	■ Extensive experience as user with FD and BE methods
Coding	■ Daily working proficiency with <code>MATLAB</code> Basic working proficiency with Phyton, c, c++, GMT, bash, \LaTeX

Riccardo Lanari

CURRENT POSITION

November/2020 – October/2022 *Department of Earth Sciences - University of Florence - Italy*

Post-Doc in Earth Science SSD GEO/07

Title: “Datazioni U-Pb su carbonati”

Supervisor: Prof. Riccardo Avanzinelli

PREVIOUS POSITION

February/2019 - October/2020 *University of Rome “Roma Tre” – Italy – Faculty of Earth science*

Post-Doc in Earth Science SSD GEO/03

Title: “Analisi delle deformazioni attive e recenti in Appennino e nell’Atlas”

Supervisor: Prof. Claudio Faccenna

EDUCATION AND QUALIFICATION

July 2019 University “Per Stranieri Dante Alighieri” – Reggio Calabria – Italy

24 CFU in Pedagogical Topics required by “D.M. n. 616 del 10 Agosto 2017”

November/2015 - November/2018 *University of Rome “Roma Tre” – Italy – Faculty of Earth science*

PhD in Earth Science XXXI CICLE

Final Grade: Excellent

Title: “Topography and exhumation of the High Atlas (Morocco)”.

Tutors: Prof. Claudio Faccenna & Dr. Giuditta Fellin

October/2012 – February/2015 *University of Rome “Roma Tre” – Italy – Faculty of Earth science*

Master degree in Structural Geology

Final Grade: 110/110 cum laude

Dissertation: “Analisi dei sistemi di faglie normali dell’area Velino Magnola, Campo Felice”.

Tutor: Prof Claudio Faccenna. Cotutor: Prof. Paola Molin

October/2009 - October/2012 *University of Rome “Roma Tre” – Italy – Faculty of Earth science*

Bachelor Degree in Geology

Final Grade: 98/110

Dissertation: “Analisi dei depositi quaternari dell’alta valle dell’Aniene”.

Tutor: Dott. Giandomenico Fubelli

AWARDS AND SCHOLASRSHIP

2010-2011 &
2012-2013

Two times Scholarship winner. Experiences at **Laboratory of Experimental Tectonics (LET, Università di Roma Tre)**, under supervision of Dr. Fabio Corbi and Prof. Claudio Faccenna. Support in preparation of the silicon wedge experiments simulating mega-thrust earthquakes

TEACHING ACTIVITIES

2016-2020

Assistance of ‘Geologia II’ bachelor degree course held by Prof. Claudio Faccenna. Development of geological cross section.

2016-2020

Assistance of ‘Experimental Tectonics’ Master degree course held by Prof. Francesca Funicello. Development of sand-box experiments.

SUPERVISION OF GRADUETE STUDENTS

2022 ongoing

Cotutor bachelor degree thesis. Student: Ludovica D’Innocenti, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari

2022 ongoing	Cotutor bachelor degree thesis. Student: Roberto Ledda, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari.
2022 March	Cotutor master degree thesis. Student: Giulio Zoppis, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari & Romano Clementucci.
2021 March	Cotutor bachelor degree thesis “Analisi morfo-tettonica della valle marineris, Marte” student: Camilla Gentili, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari.
2018 December	Cotutor bachelor degree thesis “Analisi strutturale del versante sud-orientale della valle Roveto (AQ)” student: Francesca Rossetti, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari.
2018 October	Cotutor bachelor degree thesis “Analisi strutturale dell’area di Campo Imperatore” student: Giulio Zoppis, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari.
2017 December	Cotutor bachelor degree thesis “Geologia strutturale dell’area di Campo Imperatore” student: Diego Giorgini Estop, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari.
2017 October	Cotutor bachelor degree thesis “Analisi strutturale nell’area di Trasacco-Vallelonga” student: Irene Menichelli, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari.
2017 October	Cotutor bachelor degree thesis “Analisi strutturale del versante nord-est della Val Roveto (AQ)” student: Cecilia Martinelli, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari.
2017 October	Cotutor bachelor degree thesis “Geologia strutturale del Monte Morrone a Sulmona” student: Marco Liberatore, tutor: prof. Claudio Faccenna, cotutor: Dr. Riccardo Lanari.
2015 October	Cotutor Master degree thesis “Analisi geologica strutturale e geofisica di alcune strutture tettoniche del bordo settentrionale del Bacino del Fucino” student: Paolo Primerano, tutor: prof. Claudio Faccenna, cotutor: Dr. Pio Sella & Dr. Riccardo Lanari.

ABROAD RESEARCH EXPERIENCES

2022	Visiting research at the GFZ of Potsdam, Germany. Under supervision of Prof. Claudio Faccenna.
2019	Visiting research at the University of Austin, Texas, USA. Under supervision of Prof. Claudio Faccenna.
2019	Visiting research at the CEREGE of Marseille, France. Under supervision of Dr. Lucilla Benedetti.
2017	Experience at the department of Earth and Environment Science at Lehigh University, PA, USA. Under the supervision of Prof. Frank Pazzaglia.
2015-2016	Experience at the ETH of Zurich, Switzerland. Under the supervision of Dr. Giuditta Fellin

FIELD-WORK EXPERIENCES

2020	Structural geology and Geomorphology field work at “Pollino National Park”, Southern Apennines, Italy.
2019	Structural geology field work at “Big Bend Texas National Park”, Texas, USA.
2019	Structural Geology Field work in the “Velino-Sirente National Park” and “Gran Sasso National Park”, Central Apennines, Italy.
2018	Field school in Kenya “The East African Rift System” held by M.R. Strecker (Potsdam University), C. Faccenna (Roma Tre University), H. Wichura (Potsdam University), P. Ballato (Roma Tre University).
2017	Geomorphological Field trip on the Eastern Appalachian belt, Pennsylvania, USA. Short Course of “Tectonics Geomorphology” - Prof. Frank Pazzaglia
2015-2018	Sampling, Structural geology and geomorphology field work on the High Atlas of Morocco in the framework of the PhD
2014	Structural geology field work “Velino-Sirente National Park”, central Apennines, Italy

LABORATORY EXPERIENCES

2020-2022	Experience at Laboratory of Geochemistry of University of Florence . Project on dating syn kinematic calcite fibers with U-Pb method.
2021-2022	

2019-2020	Experience at National Council of Research (CNR) of Montelibretti in Oxygen' and 'Carbon' Stable Isotopes analysis
2016-2020	Experience at Laboratory of Experimental Tectonics (LET, Università di Roma Tre) . Project on landscape evolution using granular material in sandbox experiments. Modeling interaction between tectonics and surface processes.
2015-2016	Experience at Laboratory of Experimental Tectonics (LET, Università di Roma Tre) . Sand-Box experiments in compression, transpression, and strike-slip tectonics.
	Experience at the ETH of Zurich for Low Temperature Thermochronology. Procedure to obtain a mineral fraction with a high apatite concentration from a rock sample.

INVITED SEMINAR

2022	GFZ of Potsdam (Germany) Seminar "Surface responses to deep subduction dynamics: insight from the Apennines, Italy"
2021	University of Florence (Italy), Seminar within the <i>Quaternary Tectonics</i> bachelor course. "Formation and persistence of extensional internally drained basins: the case of the Fucino basin (Central Apennines, Italy)"
2021	University of Florence (Italy), Seminar within the <i>Geochemistry</i> bachelor course "Introduction to Low-temperature thermochronology: theory and application"
2019	University of Austin, Texas (USA) seminar "Topography and Exhumation of the High Atlas"
2019	Centre of Research CEREGE, Marseille (France) seminar "Topography and Exhumation of the High Atlas".

CONFERENCES PRESENTATION

2022 September	SIG, 19-21 September, Turin (Italy): Oral presentation "Surface response to deep subduction dynamics: insight from the Apennines, Italy".
2022 May	EGU General Assembly, 23-27 May, Wien (Austria): Oral presentation "Mantle dynamics and intraplate orogeny: The Atlas of Morocco".
2019 April	EGU General Assembly, 7-12 April, Wien (Austria): Oral presentation "Cenozoic tectonic evolution of the High Atlas of Morocco: oblique compression, reactivation and strain partitioning".
2018 September	SIG – SIMP 12-14 September, Catania (Italy): Oral presentation "Control of the inherited structures on the Miocene Orogenic evolution of the High Atlas (Morocco)"
2018 April	EGU General Assembly, 8-13 April, Wien (Austria): Oral presentation "Topography and Exhumation of High Atlas (Morocco)".
2016 September	SIG – SIMP 7-9 September, Naples (Italy).

CONVENER/CHAIRPERSONS AT INTERNATIONAL CONFERENCES

2022 May	EGU General Assembly, 23-27 May, Wien (Austria): Chairpersons at session TS7.3 "Orogenic styles of the circum-Mediterranean Variscan and Alpine belts: from subduction to exhumation in time and space".
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SKILLS AND SCIENTIFIC THEMES

- Problem solving, ability to communicate with different professional figures, ability to defend and present my research in different contexts (university and congress);
- Laboratory techniques: (1) thermochronology ((U-Th)/He on apatite). Autonomous for the entire procedure from sampling to Apatite grain picking. (2) Sand-Box experiments. Expert on preparation of sand box double verging orogenic wedges both in dry and wet conditions; (3) U-Pb dating on Calcite. Capacity to prepare samples for ICP-MS and TIMS instruments, including full autonomy during the measurements. (4) Capacity to prepare samples for the 'Oxygen' and 'Carbon' Stable Isotopes analysis.
- Ability to use inversion models to derive exhumation rates from thermochronological cooling ages.
- Ability to measure and analyze structural field data and expert in geological cross sections development.
- Ability to estimate geological and geomorphologic offsets of faults.
- Ability to read landscape evolution through geomorphological and structural observations.
- Ability to extrapolate k_{sn} map, longitudinal river profiles, and concavity-steepness indices.

- Ability to use 'CHI' and 'Drainage divide Stability' tools for drainage divides migrations analysis.
- Ability to manage geodynamic topics and tools (e.g. filtered and residual topographies).

COMPUTER SKILLS

Operating System

Microsoft Windows XP/Vista/7/8/10

Software applications

Excellent use of: ArcGis, Adobe Illustrator, Office package, Daisy, Google Earth, GeoMapApp, TopoToolBox

Good Use of: MATLAB

SCIENTIFIC PUBLICATIONS ON INTERNATIONAL JOURNALS (*CORRESPONDING AUTHOR)

- Lanari R.***, Faccenna, C., Fellin, M. G., Essaifi, A., Nahid, A., Medina, F., & Youbi, N. (2020). Tectonic Evolution of the Western High Atlas of Morocco: Oblique Convergence, Reactivation, and Transpression. *Tectonics*, 39(3), e2019TC005563.
- Lanari R.***, Fellin, M. G., Faccenna, C., Balestrieri, M. L., Pazzaglia, F. J., Youbi, N., & Maden, C. (2020). Exhumation and Surface Evolution of the Western High Atlas and Surrounding Regions as Constrained by Low-Temperature Thermochronology. *Tectonics*, 39(3), e2019TC005562.
- Lanari R.***, Faccenna, C., Benedetti L., Sembroni A., Bellier O., Menichelli I., Primerano P. & Molin P. (2021). Formation and persistence of extensional internally-drained basins: the case of the Fucino basin (Central Apennines, Italy). *Tectonics*
- Fellin M.G.*, San Jose M., Faccenna C., Willett S.D., Cosentino D., **Lanari R.**, Gourbet L., & Maden C., (2021). Transition from slab roll-back to slab break-off in the central Apennines: constraints from the stratigraphic and thermochronologic record. *Geological Society of America Bulletin*.
- Casalini M.*, Tommasini S., Guarnieri L., Avanzinelli R., **Lanari R.**, Mattei M., & Conticelli S. (2021). Subduction-related lamproitic signature in intraplate-like volcanic rocks: the case study of the Tallante alkali basalts, Betic Chain, South-Eastern Spain. *Italian Journal of Geoscience*.
- Lanari R.***, Reitano R., Giachetta E., Pazzaglia F.J., Faccenna, C., Clementucci R., & Fellin M. G., (2022). Is the Anti Atlas of Morocco still uplifting? *Journal of Africa Earth Science*.
- Reitano R.*, Faccenna C., Funicello F., Corbi F., Sternai P., Willett S.D., Sembroni A., & **Lanari R.**, (2022). Sediment recycling and the evolution of analogue orogenic wedges. *Tectonics*.

CURRENTLY UNDER REVISION

- Lanari R.***, Faccenna, C., Natali C., Uluocak Şengül E., Fellin M. G., Becker T.W., Gogus O., Youbi N., Clementucci R. & Conticelli S. (2022). Mantle dynamics and intraplate orogeny: The Atlas of Morocco. Under revision on "Earth Science Reviews"
- Lanari R.***, Reitano, R., Faccenna C., Ballato P., Pazzaglia F. J., & Piana Agostinetti N. (2022). Surface response to deep subduction dynamics: insight from the Apennines, Italy. Under revision on "Tectonics"
- Clementucci R.*, Ballato P., Siame L.L., Fox M., **Lanari R.**, Sembroni A., Faccenna C., Yaaqoub A., Essaifi A., Rejuvenation of a tectonically inactive mountain belt and origin of relief in the Atlas Mountains of Morocco. Under revision on "Tectonics".
- Lanari R.***, Boutoux A., Faccenna C.; Herman F.; Willett S.D. & Ballato P. (2022). Cenozoic exhumation in the Mediterranean and the Middle East. Under revision on "Earth Science Reviews"
- Reitano R., Clementucci R, Conrad E. M., Corbi F., **Lanari R.**, Faccenna C., Bazzucchi C. (2022). Stream law in tectonic landscape analogue models. Under revision on "Geophysical Research Letters"

IN PREPARATION:

- Lanari R.***, Reitano R., Crosetto S., Faccenna C. Ballato P., Brune S. & Corbi F. (2022). Different normal faults growing in response to deep subduction dynamics: insight from the Apennines, Italy. In preparation for "Scientific Reports"
- Lanari R. ***, Buzenchi A., Bragagni A., Dhuime B., Brilli M., Del Ventisette C., Mattei M., Conticelli S. & Avanzinelli R. (2022). Mineral/Fluid interaction potential bias in calcite U/Pb dating. In preparation

for "Geology"

Marco Meschis

Ph.D. in Geology, Tectonic Geomorphology
and Active Tectonics – INGV (Italy)

Istituto Nazionale di Geofisica e Vulcanologia
(INGV) – Sezione Palermo.
Via Ugo La Malfa 153 – 90100 – Palermo

Early career researcher (3 years since PhD)

Research Interests

Tectonic Geomorphology, Earthquake Geology, Geo-spatial analysis with GIS and GPS, Active Faulting, Deformed Marine Terraces Sequences, Absolute dating using U/Th on corals and 36-Cl cosmogenic dating on wave-cut platforms, Seismic Hazard, Coulomb Stress Changes

Education

- 2014 – 2019** Birkbeck University, University of London
Ph.D. in Active Tectonics and Geomorphology
Title: Quantifying rates of active extension and seismic hazard in the upper plate of subduction zones.
First Supervisor: Prof. Gerald Roberts – Second Supervisor: Dr. Rebecca M. Briant
- 2008 – 2011** University of Palermo, Italy
MSc in Geology and Application for the Territory (107/110)
Dissertation Project: Morphotectonic setting of the area between Palermo and Sciacca - Western Sicily. Supervisor: Prof. Cipriano Di Maggio.

Research Experience

- Since Feb 2022** **Research Technologist**, Istituto Nazionale di Geofisica e Vulcanologia (sezione Palermo)
Study of crustal deformation offshore in the Mediterranean Basin
Collaborators: Francesco Italiano (Direttore INGV, sezione Palermo)
- Dec 2020 –** **Research Fellow**, Department of Physics and Astronomy “Augusto Righi” (DIFA), University of Bologna, Italy - **(1 year)**.
- Feb 2022** Study of crustal deformation in NE Italy through GPS investigations
Collaborators: S. Castellaro, G. Teza, L. Elia, G. Lattanzi, M. Di Donato, E. Serpelloni
- Jul 2019 –** **Honorary Fellow/Research Assistant**, Department of Earth and Planetary Sciences, Birkbeck College, University of London, UK - **(1.5 years)**.
- Nov 2020** Seismic hazard on normal faults using tectonically deformed marine terraces, U/Th and 36-Cl cosmogenic dating, and empirical correlation in Italy and Greece
Collaborators: G.P. Roberts, Z. Mildon, F. Iezzi, J. Robertson, C. Sgambato, A.M. Michetti, J. Faure-Walker, C. Monaco, G. Scicchitano
- Oct 2014 –** **Ph.D. Candidate/Research Assistant**, Department of Earth and Planetary Sciences, Birkbeck College, University of London, UK - **(4 years)**.
- Jun 2019** Quantifying rates of active extension and seismic hazard in the upper plate of subduction zones in southern Italy
Collaborators: G.P. Roberts, J. Robertson, B. Briant
- Jan – Sept** **MSc Research Assistant**, Department of Earth and Planetary Sciences, Birkbeck College, University of London, UK - **(9 months)**.
- 2012** Project: The implications of revised Quaternary palaeoshoreline chronologies for the rates of active extension and uplift in the upper plate of subduction zones
Collaborators: G.P. Roberts and B. Briant

Grants

- 2019** **Quaternary Research Association (QRA) - Quaternary Conference Fund (£750)**
This fund has been awarded me by QRA to support my attendance of EGU 2019 Conference in Vienna (Austria) aimed to present new obtained research results from my PhD thesis.

- 2018 **European Geoscience Union (EGU) Roland Schlich Travel Support for ECR (~£250)**
This fund has been awarded me by EGU organizers to support my attendance of EGU 2019 Conference in Vienna (Austria) aimed to present new obtained research results from my PhD thesis.
- 2018 **Tectonic Studies Group (TSG) Bursary (£500)**
The bursary has been awarded me to attend the TSG 2019 Conference in Bergen (Norway) to present, for the first time, scientific results which resolve a long-lasting debate about the 1908 Messina Earthquake (Sicily, Italy), the most powerful earthquake instrumentally recorded in Europe in the 20th century.
- 2017 **NERC Cosmogenic Isotope Analysis Facility (SUERC)** – Grant of £8184 awarded for uplifted wave-cut platforms and palaeoshorelines dating by studying the ³⁶Cl concentration.
- 2017 **NERC Isotope Geosciences Facilities (NIGL)** – Grant of £24150 awarded for coral dating to date uplifted palaeoshorelines by studying U/Th ratio.
- 2016 **NERC Cosmogenic Isotope Analysis Facility (SUERC)** – Grant of £21823 awarded for uplifted wave-cut platforms and palaeoshorelines dating by studying the ³⁶Cl concentration.
- 2014 **London NERC DTP** – Scholarship awarded by merit by NERC for my fully-funded PhD course (4 years). Award of ~ £100000 plus £16000 for research expenses.
- 2012 **“Corso di Perfezionamento all’Estero”** – Scholarship of €6000 awarded by merit by University of Palermo (Italy) to fund my Research Placement at Birkbeck University in London.

Field Geology Experience

Since my first experience as a researcher in 2012, I have undertaken several geological fieldworks within the Mediterranean realm aimed to mapping raised palaeoshorelines and active faults, and sampling beach deposits for absolute dating (U-series dating on corals and ³⁶Cl cosmogenic dating on limestone-made wave-cut platform). This allowed me to develop an extensive experience as field geologist.

Conference Convenor

I am currently preparing a session within the INQUA 2023, which will take place in Rome, where I will act as a co-convenor for the session titled: [Mediterranean Islands: tectonics, climate, sea level, chronology, evolution, & archaeology of a Quaternary “Galapagos”](https://inquaroma2023.org/conference-sessions/) (<https://inquaroma2023.org/conference-sessions/> - Session 97).

Research Supervision

Dr. Ciro Cerrone – Research placement, Birkbeck College, 2017.

Teaching experience

Sept - Dec 2017 **Demonstrator for the Structural Geology I course (Prof. Gerald Roberts), Birkbeck University**

I have helped students under the guidance of academic staff members for the Structural Geology I course. I have helped students with Stereonets exercises, preparing geological sketch maps, sketches of geological cross-sections.

Editorial and review activity

I have been asked to deliver a “Research Topic” for Frontiers Earth Sciences. I have acted as co-editor of this “Research Topic”, titled: *Seismically Deforming Upper Plates Above Active Subduction Zones: Geological, Paleoseismological and Geodetic Perspectives* (<https://www.frontiersin.org/research-topics/31590/seismically-deforming-upper-plates-above-active-subduction-zones-geological-paleoseismological-and-g>). Furthermore, I have been peer-reviewing scientific papers for tectonic and geomorphological-related journals such as Tectonics, Geomorphology, Bulletin Geological Society of Greece, Tectonophysics, Journal of Maps and many others.

Other Skills

Languages Fluent Italian (native language)

CONTRIBUTIONS TO CONFERENCES

- Caruso, C, Gattuso, A, Lazzaro, G, Longo, M, **Meschis, M.**, Scirè Scappuzzo, S, Italiano, F. - The Aeolian Islands: a potential geothermal engine.
In: 40° CONVEGNO GNGTS Convegno Nazionale del Gruppo Nazionale di Geofisica della Terra Solida, 2022
- **Meschis, M.**, Teza, G., Elia, L., Lattanzi, G., Di Donato, M., Castellaro, S. - Refining rates of active crustal deformation in the upper plate of subduction zones, implied by geologic and geodetic data: The E-dipping West Crati Fault, southern Italy. 2022 EGU Conference, Vienna, Austria.
- Robertson, J., Roberts, G.P., Iezzi, F., **Meschis, M.**, Gheorghiu, D., Bristow, C., Sgambato, C. - Locating fault tips to aid fault length identification: an example from the Gulf of Corinth rift.
2020 EGU Conference, Vienna, Austria.
- **Meschis, M.**, Roberts, G.P., Mildon, Z., Robertson, Michetti, A.M., Faure Walker, J. - The 1908 Mw 7.1 Messina Earthquake Italy revealed: 5 m rupture of an o-shore 70° east-dipping normal fault.
2019 EGU Conference, Vienna, Austria.
- **Meschis, M.**, Roberts, G.P., Mildon, Z., Robertson, Michetti, A.M., Faure Walker, J. - The 1908 Mw 7.1 Messina Earthquake Italy revealed: 5 m rupture of an o-shore 70° east-dipping normal fault.
2019 TSG Meeting, Bergen, Norway.
- Robertson, J., Roberts, G.P., Iezzi, F., **Meschis, M.**, Gheorghiu, D., - Deformation On Parallel Fault Strands Associated With The Fault Tip Zone Of The South Alkyonides Normal Fault, Greece, Quantified Using Combined ³⁶Cl Exposure Dating Of Wave-Cut Platforms, ²³⁴U/²³⁰Th Coral Dating, And Detailed Mapping.
2018 AGU Conference, Washington, USA.
- **Meschis, M.**, Roberts, G.P., Robertson, Briant, R. M. - Constant fault slip-rates over hundreds of millennia constrained by deformed Quaternary palaeoshorelines: the Vibo and Capo D'Orlando Faults, southern Italy. 2017 AGU Conference, New Orleans, USA.
- **Meschis, M.**, Roberts, G.P., Robertson, Briant, R. M, Houghton, S. - The relationship between historical seismicity, regional uplift and active crustal deformation in the upper plate of subduction zones constrained by studying tectonically-deformed Late Quaternary palaeoshorelines using a synchronous correlation approach: Capo D'Orlando Fault and Vibo Fault, Southern Italy, as case-studies.
FAULT2SHA Workshop, Barcelonnette, France, May 2017.
- **Meschis, M.**, Roberts, G.P., Robertson, J., Houghton, S., Underwood, C., Briant, R. M. - Interaction of active crustal deformation, historical seismicity and regional uplift in the upper plate of subduction zones constrained by investigating tectonically-deformed Late Quaternary palaeoshorelines using synchronous correlation: Vibo Fault and Capo D'Orlando Fault, southern Italy.
88' Geological Italian Society Meeting, Naples, Italy, September 2016.
- **Meschis, M.**, Roberts G.P., & Robertson, J. - Investigating tectonically-deformed Quaternary marine terraces using synchronous correlation to determine faulting activity: The Capo D'Orlando Fault as a case study (NE Sicily, Italy).
2016 TSG Meeting, London, UK.
- **Meschis, M.**, Roberts G.P., & Robertson, J. (2016). Constraining fault activity by investigating tectonically-deformed Quaternary palaeoshorelines using a synchronous correlation method: The Capo D'Orlando Fault as a case study (NE Sicily, Italy).
2016 EGU Conference, Vienna, Austria.
- Robertson, J., **Meschis, M.**, & Roberts, G. P. - A novel way of determining uplift over the late Quaternary: synchronous correlation between multiple palaeoshorelines and multiple sea-level highstands.
2015 QRA Postgraduate Symposium, Cambridge University.
- **Meschis, M.**, Roberts G.P., Houghton, S., Underwood, C., Briant, R. M. (2015). Deriving uplift and crustal deformation rates in the upper plate of subduction zones from tectonically deformed sequences of marine palaeoshorelines; tectonic and seismic hazard implications in Calabria (Southern Italy).
Abstracts Volume 6th International INQUA Meeting on Paleoseismology, Active Tectonics and Archaeoseismology 19-24 April 2015, Pescina, Fucino Basin, Abruzzo, Italy – Miscellanea, 27 – INGV.

INVITED TALKS

- **2020** - Invited talk to present my PhD thesis results, Department of Earth and Planetary Sciences, Mc Gill University, Montreal (Canada) (via Zoom because of Covid-19 pandemic).
- **2019** - Invited talk to present my PhD thesis results, Département des Sciences de la Terre, Caen University (France).
- **2017** – Invited talk to present my preliminary PhD thesis, Department of Earth and Planetary Sciences, Birkbeck College (London, UK).