

PERSONAL INFORMATION

Sergio C. G. Vinciguerra



📍 Università degli Studi di Torino (Unito) – Dipartimento di Scienze della Terra (DST)– via Valperga Caluso, 35 – 10125 Torino (Italia)

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ORCID ID <https://orcid.org/0000-0002-6939-3549>

Date of birth 15/02/1969 | Nationality Italian

Current Position Full Professor

RESEARCH INTERESTS

Summary

My research integrates field data from geophysical monitoring with rock mechanics and rock physics in order to better understand the deformation processes controlling and leading to rupture processes responsible for earthquakes, volcanic eruptions and geothermal systems and landslides occurrences. I extensively worked on physical and mechanical properties of rocks with relation to studies of seismic tomographies, seismotectonics, field scale strain localisation and transport properties, throughout microseismic monitoring and rock deformation laboratory experiments. In particular my research investigates how physical properties evolve under pressure, temperature and pore fluids, in order to interpret in lithological terms the geophysical investigations and signatures and understand the thermo-hydro-mechanical processes driving seismic ruptures in natural and geostorage systems.

Bibliometric Indicators

SCOPUS: h-index 36, citations 4175, documents 111
Google Scholar: h-index 40, citations 5694, i10-index 87

WORK EXPERIENCE

2023-present

Full Professor in Solid Earth Geophysics

Università degli studi di Torino, Dipartimento di Scienze della Terra

2016 to 2023

Associate Professor in Solid Earth Geophysics

Università degli studi di Torino, Dipartimento di Scienze della Terra

2013 to 2015

Reader in Geological Physical Properties and Processes and Head of the Rock Physics Laboratory

University of Leicester, Department of Earth Sciences/British Geological Survey, UK

2012 to 2016

Permanent Researcher in Applied Geology

Università degli studi di Torino, Dipartimento di Scienze della Terra

2005 to 2011

Research Fellow

Istituto Nazionale di Geofisica e Vulcanologia, Sezione di Roma1, Italy

2003 to 2005

Research Fellow

Istituto Nazionale di Geofisica e Vulcanologia, Napoli, Italy

2002 to 2003

Research Fellow (Marie Curie Return Grant)

Department of Physics, University of Catania, Italy

2001 to 2002

Post-Doctoral (Rotary Fellowship)

Department of Earth and Atmospheric Planetary Sciences, Massachusetts Institute of Technology, Cambridge, USA

1998 to 2001

Post-Doctoral (Marie Curie Grant)

Rock and Ice Physics Laboratory, University College London, UK.

EDUCATION AND TRAINING

1998

PhD in Geology

University of Catania - Thesis: Clustering properties of Etnean Seismicity.

1992

MSc in Geological Sciences

University of Catania - Thesis: Seismicity of Low Eastern flank of Mt. Etna Volcano

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken Interaction	Spoken Production	

English	C2	C1	C1	C2	C1
French	A1	A2	A2	A2	A2
Spanish	A1	A1	A2	2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

PROFESSIONAL RESPONSIBILITIES (Selected)

2024-present	Member of the Governing Board of the National Institute of Geophysics and Volcanology, Italy
2023-present	President of the Division "Earth Magnetism and Rock Physics" of the European Geosciences Union
2024-present	Unito Delegate for the HUB Green Energies for the UNITA University Montium Consortium
2012-present	PhD Board Earth Sciences (Unito) and Hazards and Disasters Reduction (Unicam/INFN/INGV)
2020-present	Associate Editor, Frontiers in Earth Sciences, Earth, Plan. Materials
2010-present	Grant Reviewer: Horizon Europe and European Research Council (Advanced, Consolidator and Starting grant); COST-European Science Foundation Association, National Science Foundation-USA, Agence Nationale de la Recherche, France; Canada Foundation for Innovation, Natural Sciences and Engineering Research Council of Canada, Helmholtz Association, Germany, NERC-UK, The Royal Society, UK; Italian Research Ministry.
2020-2022	Evaluation of Italian Research Quality (VQR)-Experts Evaluators Group (GEV)
2015-2021	Deputy-President of the Division "Earth Magnetism and Rock Physics" of the European Geosciences Union
2018-present	Editorial board, Geosciences, MDPI, (ISSN 2076-3263)
2017-present	American Geophysical Union Student Posters and Travel Grants Committee, American Geophysical Union
2016-present	American Geophysical Union On-Demand Committee, American Geophysical Union Fall Meeting
2016-present	John C. Jamieson Student Paper Award Committee, American Geophysical Union
2015-present	Fall Meeting Program Committee (Chair), American Geophysical Union Focus Group, Mineral and Rock Physics
2015-present	Mineral and Rock Physics Graduate Research Award Committee, American Geophysical Union.
2010-present	Executive Committee of the American Geophysical Union Focus Group, Mineral and Rock Physics,
2013-2015	Research Excellence Framework (REF) Reviewer, United Kingdom
2004-2010 and 2011-2014	Evaluation of Research Quality (Valutazione della Qualità della Ricerca - VQR) Reviewer
2013-2015	Head of the Rock Physics Laboratory, British Geological Survey, United Kingdom
2012-2016	Editorial board, International Scholarly Research Network (ISRN), Geophysics
2009	Guest Editor, Rock Physics and Natural Hazards, Eds. Vinciguerra S., Bernabè Y., 166, 5-7, Pure Applied Geophysics
2009	Guest Editor, Understanding stress and deformation in active volcanoes, Eds. Gudmundsson A., Acocella V., Vinciguerra S., 471, Issues 1-2, Tectonophysics
2015-2019	Working Package 16, Multiscale Laboratories EPOS-IP (European Plate Observing System – Implementation Phase)
1999-2001	Executive Committee of the Marie Curie Fellowships Association

NATIONAL AND INTERNATIONAL GRANTS (as principal investigator)

2022-present	Multidiagnostic techniques and multiscale monitoring for territory, infrastructures and cultural heritage PROTECTION from geo-risks (PROTECT), Proof of Value (PoV) Instrument 2022, SanPaolo Foundation/University of Turin;
2022-present	Hanoi University of Mining and Geology (Vietnam) – University of Turin, KA171 - International mobility involving Third Countries not associated to the Programme Erasmus+, REGION 5-INDIA/GIAPPONE/VIETNAM;

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| 2022-present | • | Fondazione Cassa di Risparmio di Torino (CRT), Difesa del territorio e protezione dai rischi naturali: Un nuovo sistema di monitoraggio e allertamento per frane da crollo; |
| 2019-2020 | • | Edison, Physical properties of carbonatic rocks from active faults in Greece; |
| 2015-2017 | • | Ciencias sem fronteiras, Programa Pesquisador Visitante Especial, Process n.888887.114991/2015-00 – CAPES/CNPq, Thermo-hydro-mechanical processes in carbonatic rocks, implications for reservoirs integrity and mechanical behavior, University of Macaè, Brasil; |
| 2016 | • | University of Turin/Fondazione San Paolo, Bando d'ateneo 2012, EU-Accelerating Grant, Multiscale geophysical monitoring and mechanical characterization of unstable rock masses; |
| 2014-2017 | • | EU-FP7-PEOPLE-2013-Career Integration Grant, Detecting slow deformation signals preceding dynamic failure: A new strategy for the mitigation of natural hazards, Grant n. 618346; |
| 2009 | • | Programma Galileo, Bilateral agreement INGV Rome-EOST Strasbourg; |
| 2008 | • | UNESCO-International Year of Planet Earth 2008 (Hazards Theme) accredited project: Understanding slow deformation (creep) before dynamic failure; |
| 2005-2007 | • | CNR/CNRS, Bilateral Agreement INGV Rome-EOST Strasbourg; |
| 2003 | • | British Council, Young researchers Italian-British collaboration, 2003; |
| 2002-2003 | • | Marie Curie Individual Fellowship, Category 'Return', contract n. HPMF-CT-2001-01225; |
| 2001-2002 | • | Rotary Foundation outgoing fellowship; |
| 2000-2001 | • | CNR-NATO fellowship for research abroad; |
| 1998-2000 | • | Marie Curie Individual Fellowship, Category 30 (post-doctoral), contract n. FMBICT983260 |

TEACHING ACTIVITY

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|--------------|---|---|
| 2016-present | • | Earth Physics (CFU 9), Bachelor degree in Geological Sciences, University of Turin (L-34 e LM-75) |
| 2019-present | • | Seismology and Earthquake Mechanics (CFU 6), Master degree in Applied Geology, University of Turin (L-34 e LM-75) |
| 2020-present | • | Environmental Geophysics (CFU 4), Master degree in Environment Monitoring, Protection and Recovery, University of Turin (LM-75) |
| 2021-present | • | Seismic and Volcanic Risk (CFU 6), Master degree in Applied Geology, University of Turin (L-34 e LM-75) |
| 2015-present | • | Earth System and applications (CFU 9), Doctoral School in Natural Sciences and Innovative Technologies, University of Turin |
| 2013-present | • | Geomaterials Rheology (CFU 6), Doctoral School in Natural Sciences and Innovative Technologies, University of Turin |
| 2017-2019 | • | Geomechanics and Applied Geology (CFU 6), Master degree in Applied Geology, University of Turin (L-34 e LM-75) |
| 2016-2017 | • | Seismology (CFU 6), Master degree in 'Geoenvironmental resources and risks' (LM-74), School of Sciences and Technologies, University of Camerino; |
| 2016-2019 | • | Nature Conversation and Resources (CFU 9), Master degree in Natural Sciences, University of Turin (LM-75) |
| 2016-2019 | • | Advanced Field Techniques (Sicily), (10 credits), Department of Earth Sciences, University of Leicester, United Kingdom, |
| 2017-2018 | • | Quarries and Environment Recovery (CFU 6), Master degree in Applied Geology, University of Turin (L-34 e LM-75) |
| 2013-2015 | • | Plate Tectonics, (10 credits), Department of Earth Sciences, University of Leicester, United Kingdom; |
| 2013-2015 | • | Rock Physics and Natural Hazards, (10 credits), Department of Earth Sciences, University of Leicester, United Kingdom, |
| 2012-2015 | • | Advanced Field Techniques (Sicily), (10 credits), Department of Earth Sciences, University of Leicester, United Kingdom; |
| 2012-2013 | • | Rock Physics (CFU 6), Master degree in Applied Geology, University of Turin (L-34 e LM-75) |
| 2010-2011 | • | Rock Mechanics (CFU 8), Master degree in 'Geoenvironmental resources and risks', School of Sciences and Technologies, University of Camerino; |
| 2008-present | • | 11 Ph.D students supervised and 12 master/bachelor students |
| June 2011 | • | Professeur 1st class, Ecole Normale Supérieure, Paris, France, |
| July 2011 | • | Professeur 1st class, Université de Cergy-Pontoise, Cergy-Pontoise, France |
| January 2008 | • | Professeur 2nd class, Université Louis Pasteur Strasbourg I, Strasbourg, France |

MEETINGS (in the last 10 years)

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| 10-14 April 2024 | <ul style="list-style-type: none"> Convenor of the session EMRP1.2 "Petroph., Rock Physics and processes in geo-reservoir" and EMRP1.5 "Rock Damage and Progressive Failure", European Geosciences Union GA, Vienna (AT) |
| 11-15 December 2023 | <ul style="list-style-type: none"> Primary Convenor of the session MR016 "Pre-, co- and post-rupture processes across multiple scales", American Geophysical Union Fall Meeting, San Francisco, CA (USA), |
| 23-26 October 2023 | <ul style="list-style-type: none"> Scientific Committee, 15th Euro-conf. of Rock Physics and Geomechanics, Woudschoten (NL) |
| 10-14 July 2023 | <ul style="list-style-type: none"> Scientific Committee, Summer School-UNITA (Universitas Montium): Energy communities in mountain villages, Timisoara (RO) |
| 24-28 April 2023 | <ul style="list-style-type: none"> Primary Convenor of the session EMRP1.15 "Open Session on Rock Physics", European Geosciences Union GA, Vienna (AT) |
| 24-28 April 2023 | <ul style="list-style-type: none"> Primary Convenor of the session DM22 "Division meeting for Earth Magnetism & Rock Physics (EMRP)", European Geosciences Union GA, Vienna (AT), |
| 24-28 April 2023 | <ul style="list-style-type: none"> Primary Convenor of the session MAL22 "Petrus Peregrinus Medal Lecture & EMRP Division Outstanding ECS Award Lecture", European Geosciences Union GA, Vienna (AT) |
| 24-28 April 2023 | <ul style="list-style-type: none"> Convenor of the session EMRP1.3 "Multiscale rock damage in geology, geophysics and geo-engineering systems", European Geosciences Union GA, Vienna (AT) |
| 11-17 July 2022 | <ul style="list-style-type: none"> Scientific Committee, Summer School-UNITA (Universitas Montium): Renewable energy for the mountain territories, Turin (Italy); |
| 23-27 May 2022 | <ul style="list-style-type: none"> Primary Convenor of the session EMRP1.16 "Open Session on Rock Physics", European Geosciences Union General Assembly, Vienna (AT); |
| 23-27 May 2022 | <ul style="list-style-type: none"> Convenor of the session MAL21 "Louis Néel Medal Lecture & EMRP Division Outstanding ECS Award Lecture", European Geosciences Union GA, Vienna (AT) |
| 13-17 December 2021 | <ul style="list-style-type: none"> Primary Convenor MR031 "Pre-, co- and post-rupture processes across multiple scales", American Geophysical Union Fall Meeting, New Orleans, LA, USA |
| 03-09 September 2021 | <ul style="list-style-type: none"> Scientific Committee, 14th Euro-conference of Rock Physics and Geomechanics, Edinburgh (virtual) |
| 19-30 April 2021 | <ul style="list-style-type: none"> Primary Convenor EMRP1.16 "Open Session on Rock Physics", European Geosciences Union GA, Virtual |
| 07-17 December 2020 | <ul style="list-style-type: none"> Primary Convenor MR010 "Pre-, co- and post-rupture processes across multiple scales", American Geophysical Union Fall Meeting, Virtual |
| 4-8 May 2020 | <ul style="list-style-type: none"> Convenor EMRP1.2/ERE6/HS13 Advances in Rock Physics and coupled THM reservoir processes, European Geosciences Union GA, Virtual |
| 9-13 December 2019 | <ul style="list-style-type: none"> Primary Convenor of the session "Pre-, co- and post-rupture processes across multiple scales", American Geophysical Union Fall Meeting, Washington, DC (USA) |
| 2-6 September 2019 | <ul style="list-style-type: none"> Scientific Committee of the 13th Euro-conference of Rock Physics and Geomechanics on "Rock Fracturing and Fault Activation", Potsdam (DE) |
| 7-12 April 2019 | <ul style="list-style-type: none"> Convenor of the session EMRP1.3 "Rock physics: upscaling thermo-hydro-mechanical rock properties from laboratory to natural systems", European Geosciences Union GA, Vienna (AT) |
| 10-14 December 2018 | <ul style="list-style-type: none"> Primary Convenor of the session MR043/051 "Tensile and Shear Dynamic Rupturing Across Multiple Scales: Precursory Deformation", American Geophysical Union Fall Meeting, Washington (USA) |
| 8-13 April 2018 | <ul style="list-style-type: none"> Primary Convenor of the session EMRP1.1 "Open Session on Rock Physics", European Geosciences Union GA, Vienna (AT) |
| 11-15 December 2017 | <ul style="list-style-type: none"> Primary Convenor of the session MR021 "Precursory deformation before dynamic failure", American Geophysical Union Fall Meeting, New Orleans, LA (USA) |
| 05-10 November 2017 | <ul style="list-style-type: none"> Scientific Committee of the 12th Euro-conference of Rock Physics and Geomechanics "Bridging between Rock Physics and Structural Geology", Ma'ale HaHamisha (Israel) |
| 23-28 April 2017 | <ul style="list-style-type: none"> Convenor of the session EMRP1.4/GD7.6/SM6.3 "Rock physics and geomechanical characterization of rocks from micro to macroscale: the role of anisotropy and hydro-mechanical coupling", European Geosciences Union GA, Vienna (AT) |
| 12-16 December 2016 | <ul style="list-style-type: none"> Convenor of the session MR033 "Precursory deformation before dynamic failure", American Geophysical Union Fall Meeting, San Francisco (USA) |
| 18-22 April 2016 | <ul style="list-style-type: none"> Primary Convenor of the session EMRP1.1 "Open session on Rock Physics" and EMRP1.2/ERE3.9/GI3.10 "Thermo-hydro-mechanical couplings and deep geothermal energy", <i>European Geosciences Union</i>, Vienna (AT) |
| 06-10 September 2015 | <ul style="list-style-type: none"> Scientific Committee of the 11th Euro-conference of Rock Physics and Geomechanics, Ambleside (England) |
| 12-17 April 2015 | <ul style="list-style-type: none"> Primary Convenor of the session EMRP1.2 "Thermo-hydro-mechanical coupling and physical properties: implications to natural hazards", European Geosciences Union, Vienna (AT) |
| 12-15 May 2014 | <ul style="list-style-type: none"> Scientific Committee of the 10th Euro-conference of Rock Physics and Geomechanics, Aussois (France) |
| 27 April-2 May, 2014 | <ul style="list-style-type: none"> Primary Convenor of the session EMRP1.2 "Thermo-mechanical coupling and physical properties: implications to natural hazards", European Geosciences Union, Vienna (AT) |
| 16-18 September, 2013 | <ul style="list-style-type: none"> Convenor of the session Earth Resources C3 Session-Fractured carbonate reservoir, Geoitalia |

- 2013, Pisa
- 07-12 April 2013
- Primary Convenor of the session EMRP1.3 "Thermo-mechanical coupling and physical properties: implications to natural hazards", European Geosciences Union, Vienna (AT)
- 23-27 April 2012
- Primary Convenor of the session EMRP2.6/GMPV6.10/NH4.1/SM5.5/TS2.9 "Thermo-mechanical coupling and physical properties: implications to natural hazards" and Convenor of EMRP2.2/GMPV6.21/SM5.6 "A tribute to Luigi Burlini", European Geosciences Union, Vienna (AT)

MEDIA AND OUTREACH (in the last 10 years)

- 2012- 2018
- 2005-present
- Editorial advisory board - EOS, Earth and Space Science News (American Geophysical Union)
 - Press interviews for TV (Rai, BBC, National Geographic, Now TV), scientific magazines, newspapers and radio (Ansa, Corriere della Sera, Galileo, Darwin, Radio Rai 2)
- 2002-present
- 2015-present
- Seminars for no-profit organisations such Rotary and Lyons clubs in Europe and USA
 - Third mission for high-school students, seminars and field trip.

ATTACHMENT

- List of selected publications

Personal data

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Date: Turin, 18 October, 2024

Signature:



List of selected publications

1. Alcock T., Vinciguerra S., Benson P.M.; Bullen D., (2024); Multiscale fracture, physical and mechanical properties of Stromboli Volcano (Italy) edifice, *Journal of Structural Geology*, July 2024, Volume 184, <https://doi.org/10.1016/j.jsg.2024.105155>
2. King T., De Siena L., Zhang Y., Nakata N., Benson P., Vinciguerra S. (2023); Mapping faults in the laboratory with seismic scattering 2: the modelling perspective, *Geophysical Journal International*, 234 (2), August 2023, Pages 1024–1031, 10.1093/gji/ggad100
3. Vinciguerra S., Greco A., Pluchino A., Rapisarda A., Tsallis C. (2023); Acoustic Emissions in Rock Deformation and Failure: New Insights from Q-Statistical Analysis, *Entropy*, 25(4), 701, <https://doi.org/10.3390/e25040701>
4. Alcock T., Bullen D., Benson P., Vinciguerra S. (2023); Temperature-driven micro-fracturing in Granite: the interplay between microstructure, mineralogy and tensile strength, *Heliyon*, <https://doi.org/10.1016/j.heliyon.2023.e13871>
5. Vagnon F., Vinciguerra S., Comina C., Ferrero A.M., Missaglia R. (2023); Multiparametric analysis of thermally induced crack damage in marbles, *Heliyon*, doi: <https://doi.org/10.1016/j.heliyon.2023.e19184>
6. King T., De Siena L., Benson P., Vinciguerra S. (2022); Mapping faults in the laboratory with seismic scattering 1: the laboratory perspective, *Geophysical Journal International*, 232 (3), 1590–1599, DOI: 10.1093/gji/ggac409
7. King T., Vinciguerra S., De Siena L., Benson P. (2021); Source analysis of fault nucleation and formation during laboratory earthquakes, *Journal of Geophysical Research-Solid Earth*, 126, e2020JB021059, doi: 10.1029/2020JB021059
8. King T., Benson P., De Siena L., Vinciguerra S., (2020); Acoustic Emission Waveform Picking with Time Delay Neural Networks During Rock Deformation Laboratory Experiments, *Seismological Research Letters*, 92 (2A): 923–932, doi: [10.1785/0220200188](https://doi.org/10.1785/0220200188)
9. Chanard K., Nicolas A., Hatano T., Petrelis F., Latour S., Vinciguerra S., Schubnel A. (2019); Sensitivity of acoustic emission triggering to small pore pressure cycling perturbations during brittle creep, *Geophysical Research Letters*, 46, <https://doi.org/10.1029/2019GL082093>
10. Fazio M., Alparone S., Benson P.M., Cannata A., Vinciguerra S. (2019); Genesis and mechanisms controlling Tomillo seismo-volcanic events in volcanic areas, *Nature Scientific Reports*, 9: 7338, <https://doi.org/10.1038/s41598-019-43842-y>
11. Mc Beck J., Cordonnier B., Vinciguerra S., Renard F. (2019); Volumetric and shear strain localization in Mt. Etna basalt, *Geophysical Research Letters*, 46 (1-9), doi: [10.1029/2018GL081299](https://doi.org/10.1029/2018GL081299)
12. Colombero C., Comina C., Vinciguerra S. and Benson P. (2018); Microseismicity of an unstable rock mass: from field monitoring to laboratory testing, *Journal of Geophysical Research – Solid Earth*, 123 (2), 1673-1693, doi: 10.1002/2017JB014612
13. Colombero C., Baillet L., Comina C., Jongmans D., Larose E., Valentin J., Vinciguerra S. (2018); Integration of ambient seismic noise monitoring, displacement and meteorological measurements to infer the temperature-controlled long-term evolution of a complex prone-to-fall cliff, *Geophysical Journal International*, Volume 213, Issue 3, 1 June 2018, Pages 1876–1897
14. Castagna A., Ougier-Simonin A., Benson P. M., Browning J., Walker R. J., Fazio M., Vinciguerra S. (2018); Thermal Damage and Pore Pressure Effects on Brittle-Ductile Transition of Comiso Limestone, *Journal of Geophysical Research – Solid Earth*, 123 (9), 7644-7660, doi: [10.1029/2017JB015105](https://doi.org/10.1029/2017JB015105)
15. Colombero C., Baillet L., Comina C., Jongmans D., Vinciguerra S. (2017); Characterization of the 3-D fracture setting of an unstable rock mass: from surface and seismic investigations to numerical modeling", *Journal of Geophysical Research – Solid Earth*, 122, 6346–6366, doi:10.1002/2017JB014111
16. Fazio M., Benson P., Vinciguerra S. (2017); On the generation mechanisms of fluid-driven seismic signals related to volcano tectonics, *Geophysical Research Letters*, 44, 734-742, DOI: 10.1002/2016GL070919
17. Agliardi F., Dobbs M.R., Zanchetta S., Vinciguerra S. (2017); Folded fabric tunes rock deformation and failure mode in the upper crust, *Nature Scientific Reports*, 7 (1-9):15290
18. King T., Benson P., De Siena L., Vinciguerra S. (2017); Investigating the Apparent Seismic Diffusivity of Near-Receiver Geology at Mount St. Helens Volcano, USA, *Geosciences*, 7(4), 130, doi:10.3390/geosciences7040130
19. Colombero C., Comina C., Umili G., Vinciguerra S. (2016); Multiscale geophysical characterization of an unstable rock mass, *Tectonophysics*, 675, 275-289, doi: 10.1016/j.tecto.2016.02.045
20. Zhu W., Baud P., Vinciguerra S., Wong T.-f. (2015); Micromechanics of brittle faulting and cataclastic flow in Mount Etna basalt, *Journal of Geophysical Research Solid Earth*, 121, doi:10.1002/2016JB012826
21. Benson P., Vinciguerra S., Nasser F., Young P.R. (2014); Laboratory simulations of fluid/gas induced micro-earthquakes: application to volcano seismology, *Front. Earth Sci.*, 2(32), 1-6, doi: 10.3389/feart.2014.00032
22. Violay M., Nielsen S., Gibert B., Spagnuolo E., Cavallo A., Azais P., Vinciguerra S., Di Toro, G. (2014); Effect of water on the frictional behavior of cohesive rocks during earthquakes, *Geology*, 42 (1), 27–30
23. Heap M., Baud P., Meredith P., Vinciguerra S., and Reuschlé T. (2014); The permeability and elastic moduli of tuff from Campi Flegrei, Italy: implications for ground deformation, *Solid Earth*, 5, 25-44
24. Carbone D., Aloisi M., Vinciguerra S., Puglisi G. (2014); Stress, strain and mass changes at Mt. Etna during the period between the 1993-94 and 2001 flank eruptions, *Earth-Science Review*, 138, 454-468
25. Latour S., Schubnel A., Nielsen S., Madariaga R., Vinciguerra S. (2013); Characterization of nucleation during laboratory earthquakes, *Geophysical Research Letters*, 40, 5064-5069
26. Vinciguerra S. and Day S. (2013); Clustering properties of seismicity following the 9 May 1989 earthquake swarms at the Canarian Islands. Evidences of magma intrusions? *Acta Geophysica*, 61, 6, 2013, 1626-1641
27. Faoro I., Vinciguerra S., Marone C., Elsworth D., Schubnel A. (2012); Linking permeability and mechanical damage for basalt from Mt Etna Volcano, *Geophysical Research Letters*, VOL. 40, 1–6, doi:10.1002/grl.50436
28. Trippetta F., Collettini C., Meredith P.G., Vinciguerra S. (2012); Elastic moduli of Triassic Evaporites and their variation under cyclic stress experiments, *Tectonophysics*, 592, 67-79, DOI: 10.1016/j.tecto.2013.02.011
29. De Rubeis V., Vinciguerra S., Tosi P., Sbarra P., Benson P.M. (2011); Acoustic Emission spectra classification from rock samples of Etna basalt in deformation-decompression laboratory experiments, Synchronization and triggering: from fracture to earthquake processes, *Geoplanet: Earth and Planetary Sciences 1*, Eds. De Rubeis V., Czechowski Z., Teisseyre R., Springer-Verlag, DOI 10.1007/978-3-642-12300-9_11

30. Heap M. J., Baud P., Meredith P.G., Vinciguerra S., Bell A.F., Main I. G. (2011); Brittle creep in basalt from Mt Etna volcano: implications for time-dependent volcano deformation, *Earth and Planetary Science Letters*, 307, 71-82 doi: 10.1016/j.epsl.2011.04.035
31. Schubnel A.J.; Nielsen S. B., Taddeucci J.; Vinciguerra S. (2011); Rao S., Photo-acoustic study of subshear and supershear ruptures in the laboratory, *Earth and Planetary Science Letters*, 308, 424-432, doi:10.1016/j.epsl.2011.06.013
32. Fortin J., Stanchits S., Vinciguerra S., Dresen G. (2011); Influence of thermal and mechanical cracks on permeability and elastic wave velocities in a basalt from Mt. Etna volcano subjected to elevated pressure, *Tectonophysics*, 503, 60-74
33. Tuccimei P., Castelluccio M., Moretti S., Mollo S, Vinciguerra S., Scarlato P. (2011); Thermal enhancement of radon emission from geological materials. Implications for laboratory experiments on rocks under increasing deformation, *Horizons in Earth Science Research*, Nova Science Publishers, Eds. Veress B. and Szigethy J., Vol. 4, ISBN: 978-1-61122-763-5
34. Zhu W., Baud P., Vinciguerra S., Wong T-f. (2011); Micromechanics of brittle faulting and cataclastic flow in Alban Hills tuff, *J. Geophys. Res.*, 116, B06209, doi:10.1029/2010JB008046
35. Mollo S., Tuccimei P., Heap M. J., Vinciguerra S., Soligo M., Castelluccio M., Scarlato P. and Dingwell D. B. (2011); Increase in radon emission due to rock failure: An experimental study, *Geophys. Res. Lett.*, 38, L14304, doi:10.1029/2011GL047962
36. Trippetta F., Vinciguerra S., Collettini C., Meredith P.G. (2010); Laboratory measurements of the physical properties of Triassic Evaporites from Central Italy and correlation with geophysical data, *Tectonophysics*, 429, 121-132
37. Nielsen S., Taddeucci J., Vinciguerra S. (2010); Experimental observation of stick-slip instability fronts, *Geophys. J. International*, 180, 697-702, doi: 10.1111/j.1365-246X.2009.04444.x
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