MATTIA PISTONE – CURRICULUM VITAE (August 2025)

Present contact

5th January 1984 (Chieti, Italy)
Italian Citizen / EU Citizen / US Permanent Resident (Green Card Holder)
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https://mpistonesite.wordpress.com

Citation metrics:
Google Scholar: 1330 citations, h-index: 19, i10-index: 27
Mendeley (ID: 54780522600): 1050 citations, h-index: 17
Web of Science ResearcherID (ID: Q-6142-2018): 965 citations, h-index: 16
Researcher ORCID: https://orcid.org/0000-0001-7560-3146

Associate Professor of Petrology and Volcanology, Director of MAGMA MIA Laboratory, Advisor of one PhD student, one Master student, and two bachelor students at the University of Georgia (USA). PI (out of seven) of the ICDP-sponsored DIVE (Drilling the Ivrea-Verbano zonE) project. Laboratory and field geologist, petrologist, volcanologist, and magma physicist with a strong track record in international collaborative partnerships in Europe and North America. Enthusiastic communicator, team player, and project manager. Skilful in high-pressure and high-temperature experimentation and tomographic microscopy to explore magma degassing, transport, unrest, and eruption.

Language proficiency

Italian (native), English (proficient), French (advanced), German (intermediate).

Education

November 2012: **Doctoral Degree in Earth Science**, ETH-Zurich, Switzerland, on *Physical properties of crystal- and bubble-bearing magmas* (Advisors: Prof. Peter Ulmer, Prof. Luca Caricchi, Dr. Luigi Burlini)

July 2008: **Master Degree in Geodynamics, Geophysics, Volcanology (110/110 summa cum laude)**, Università La Sapienza, Rome, Italy, on *Petrological and physical properties of the Avellino Eruption magma chamber of Somma-Vesuvius* (in Italian) (Advisors: Prof. Raffaello Trigila, Dr. Luca Caricchi, Dr. Luigi Burlini)

October 2006: **Bachelor Degree in Geological Sciences (110/110 summa cum laude)**, Università G. D'Annunzio, Chieti, Italy, on *Investigation on dynamic crystallization of an andesite from Panarea Island, Aeolian Islands, Italy* (in Italian) (Advisors: Dr. Gianluca Iezzi, Dr. Silvio Mollo, Dr. Tonino Traini)

Professional experience

Since August 2019: **Assistant Professor**, University of Georgia, GA, US, in *Petrology and Volcanology*

January 2017-July 2019: **SNSF-Ambizione Maître Assistant (Lecturer)**, University of Lausanne, Switzerland, on *Petrophysics of the Melt Connectivity Transition: Petrological, Rheological, and Seismic Characterisation of the Continental Moho* (PI: Dr. Mattia Pistone)

November 2014-October 2016: **NSF-GeoPRISMS Research Fellow**, National Museum of Natural History, Smithsonian Institution, Washington DC, US, on *The role of oxygen fugacity in calc-alkaline differentiation and the creation of continental crust at the Aleutian arc* (PIs: Dr. Elizabeth Cottrell and Prof. Katherine A. Kelley)

July-August 2014: **NERC Research Fellow**, Camborne School of Mines, Exeter University, and University of Bristol, United Kindgom, on *Critical metals in nature: crystal-melt partitioning of indium at high temperature and pressure conditions* (PIs: Prof. Jonathan D. Blundy and Dr. Jens Andersen)

June 2014: **Advanced Career SNSF Research Fellow**, University of Bristol, United Kingdom, and University of Missouri-Columbia, US, on *The influence of volatiles on the interaction of mafic and felsic magmas* (PI: Dr. Mattia Pistone; renounced for the NSF-GeoPRISMS Fellowship)

January-June 2014: **ERC Research Fellow**, University of Bristol, United Kingdom, on *The influence of volatiles on the interaction of mafic and felsic magmas* (PI: Prof. Jonathan D. Blundy)

January-December 2013: **Early Career SNSF Research Fellow**, University of Bristol, United Kingdom, on *The influence of volatiles on the interaction of mafic and felsic magmas* (PI: Dr. Mattia Pistone)

October-November 2012: **SAPHYR Postdoc**, ETH-Zurich, Switzerland, on *Seismic anisotropy of the Finero Peridotite (Ivrea Zone, Italy)* (PIs: Prof. Eduard Kissling, Dr. Alba S. Zappone)

Teaching and mentoring

Associate Professor:

2020-pres. *Undergraduate level:*

GEOL 1121 Earth Processes and Environment

GEOL 4020 Internal Earth Processes

GEOL 4020L Internal Earth Processes (Petrography Laboratory)

GEOL 4300 Igneous and Metamorphic Petrology

GEOL 4470 Introduction to Research in Petrology

GEOL 4940L Volcanology

FYOS 1001 Magma Mia! Understanding Active Volcanoes using Modern Petrology

FYOS 1001 Journey in the Earth's interior: origin, architecture, and dynamics of continents

FYOS 1001 Global Citizenship Cluster - Natural Hazards and Critical Metals: Geology as the Answer to Climate Crisis and Geopolitical Concerns

Writing Intensive Program (WIP): https://wip.uga.edu/fall-2021-newsletter/

2020-pres. *Graduate level:*

GEOL 6300 Igneous and Metamorphic Petrology

GEOL 6470 Introduction to Research in Petrology

GEOL 6940L Volcanology

GEOL 8070 Advanced Topics in Petrology

GEOL 8790 Research Project in Petrology

GradFIRST Seminar 7001 Studies of Hazards (SHAZARDS) in Geology

GRSC 8550 Responsible Conduct in Research and Scholarship (co-teaching)

Lecturer:

2018 *Undergraduate level:*

Practical Training in Magmatic Petrology (*Travaux Pratique de Petrologie Magmatique*)

Italian National Scientific Habilitation:

2018 Eligible for Associate Professorship in Geochemistry, Mineralogy, Petrology, Volcanology, and Georesources: https://asn16.cineca.it/pubblico/miur/esito-abilitato/04%252FA1/2/4

Lecture Assistant in courses for undergraduate level:

2008-12 Optical Microscopy of Metamorphic and Igneous Rocks

2009-12 Volcanology

Field Instructor in courses for undergraduate level:

2017-21 Petrology and Volcanology

2013-14 Geology I

2008-12 Volcanology

Advisor of students:

Graduate students:

2025-pres. Allison Hidalgo (*Rheology of magmas from the asthenosphere to volcanoes: experiments and modelling*) [Master; University of Georgia, US]

2025-pres. Andrea Tonato (*The excess gas paradox at volcanoes: does CO_2 favor gas accumulation in mafic magmas?*) [PhD; University of Georgia, US]

2024-pres. Kade McClain (*Petrological and geochemical analysis of tephra from Plinian eruptions of Chimborazo volcano*) [Master; University of Georgia, US]

2022-24 Jackson Oakey (*Flow or blow? Understanding magma flow in conduits during vesiculation*) [Master; University of Georgia, US]

2022-24 Kaitlyn Hulsey (*Building up magma reservoirs in the Earth's crust: Case of Stone Mountain*) [Master; University of Georgia, US]

2022-24 Carlynn Daniel (*How are paroxysms generated at mafic volcanoes?: Insights into Mt Etna 2020-2022 eruption activity*) [Master; University of Georgia, US]

2021-23 Andrew Maendel (*Magma differentiation in the Earth's lower crust: Insights into the analysis of an olivine gabbro of the Ivrea-Verbano Zone, Alps, Italy*) [Master; University of Georgia, US]

2020-22 Samuel Oxhorn (*Western Aleutian Volcanism: Defining Magmatic Series Transitions and Petrogenetic Origins*) [Master; University of Georgia, US]

Undergraduate students:

2025-pres. Agigail Roselli Verna (*Multiphase basaltic lava rheology: A case study of Mt Etna*) [University of Georgia, US]

2024-pres. Alexandra Grace Lang (*Mt. Etna's Mercury and Downwind Populations*) [University of Georgia, US]

2023-24 Ruby Jiahui Parcells (*Did Chimborazo volcano (Ecuador) cause the Late Antique Little Ice Age or other climate changes at a regional to global scale?*) [University of Georgia, US]

2022-23 Jeremiah Funke (*Magmatic sulphide systems in the deep crust of the Ivrea-Verbano Zone, Italy*) [University of Georgia, US]

2022-23 Grace Elizabeth Cantele (*Determining mercury concentration in minerals, rocks, and soils at Mt Etna, Italy*) [University of Georgia, US]

2019 Alexia Secrétan (*Magma cannibalism in volcanic and plutonic rocks*) [University of Lausanne, Switzerland]

Co-advisor of students and postdocs:

Postdocs:

2021-23 Amy Ryan (*The Role of Deformation in Triggering Volcanic Eruptions*) [University of Minnesota; Advisor: L. Hansen]

Graduate students:

2018-pres. Thomas Herbst (*Degassing and outgassing of crystal-bearing dacite*) [Master/PhD; University of Missouri, Columbia, US; Advisor: A.G. Whittington]

2019-21 Russell Cutts (*Mineralogical and textural alteration of heated tool-stones: advances in understanding fire-cracked rock*) [PhD; University of Georgia; Advisor: E. Garrison]

2019-20 Hüseyin Demir (*Mineral, elemental, and isotopic evidence for the provenance of clay deposits in Sile, NW Turkey*) [Master; University of Georgia; Advisor: P. Schroeder]

2017-18 Selena Galdini (*Petrological, geochemical and rheological modelling of alkaline magma ascent at Fogo Volcano, Cape Verde*) [Master; University of Lausanne, Switzerland; Advisor: S. Pilet]

2013-14 Paul Jarvis (*Phenomena at the interface between two magmas*) [PhD; University of Bristol, United Kingdom; Advisors: J.D. Blundy, K.V. Cashman, H.M. Mader]

Jessica Shields (*Mobilisation of highly viscous flows: Insights from field and laboratory experiments*) [PhD; University of Bristol, United Kingdom; Advisor: H.M. Mader]

Undergraduate students:

2015 Katherine Sheppard (UC Santa Barbara) and Elizabeth Grant (University of Rhode Island (fieldwork in the Western Aleutians) [Undergraduates; Advisors: E. Cottrell, K.A. Kelley]

Mentor in other educational programs:

2021-22 Women in Science (WiSci) Mentorship Program of the University of Georgia

Service

- Member of the Scientific Committee of the 16th European Geopark Conference: https://www.egn2022conference.eu/index.php/organization/committees
- Peer-reviewed Journal Reviewer for 61 original scientific contributions (2013-present), as reported in my Publons profile: https://publons.com/author/1417956/mattia-pistone#profile
- Reviewer for funding agencies of NERC (United Kingdom), NSF (US), and ANR (France) (2014-present).
- Review panelist for funding agencies NSF (2022) and NASA (2023-2024).
- Guest Editor of two Research Topics / Ebooks in Frontiers in Earth Science (2017-2020): *Volumes, Timescales, and Frequency of Magmatic Processes in the Earth's Lithosphere* and *Deep Carbon Science*
- Associate Editor of Frontiers in Earth Science – Section of Petrology (2019-present)
- Primary convener and co-convener of scientific sessions at AGU (2013, 2015-2022), EGU (2015-2019), IAVCEI (2017, 2023), and Centennial Symposium of MSA (2019)
- Organiser (out of 3) of the ICDP Workshop DIVE (Drilling the Ivrea-Verbano zonE) in Baveno, Italy (1st–4th May 2017)
- Organiser of the scientific meeting "Journée Petrologique Magmatique" in Lausanne, Switzerland (18th January 2019)
- Seminar organiser at the School of Earth Sciences, University of Bristol, United Kingdom (2013-2014)

Professional memberships

European Geosciences Union (EGU), American Geophysical Union (AGU), Mineralogical Society of America (MSA), Geological Society of America (GSA), Società Geologica Italiana (SGI), Associazione Italiana di Vulcanologia (AIV), National Center for Faculty Development and Diversity (NCFDD), National Association of Geoscience Teachers (NAGT), Sigma Xi – The Scientific Research Honor Society.

Engagement in science communication and outreach

2025 Article on *The Rock Doctor: Measuring the pulse of volcanos past and present — for the future*, @UGAResearch: https://research.uga.edu/news/the-rock-doctor-measuring-the-pulse-of-volcanos-past-and-present-for-the-future/

2024 Video interview in *Sharing Minds: Sampling Rocks*, National Institution of Geophysics and Volcanology of Italy (INGV) as part of the Monitoring Earth's Evolution and Tectonics (MEET), sponsored by Transnational Access (TNA) and National Open Access (NOA) scheme of the Next Generation of European Fund, Integrated Laboratories for Geoscience and Environment (ILGE), Italian National Recovery and Resilience Plan (PNRR)
https://ilge.ct.ingv.it/SHARING%20MINDS1.mov
https://youtu.be/9HWu2ZEGooE?si=O2FGZlQta0ZlhA7k

Article on *Ivrea-Verbano, Fase 1 del Progetto DIVE: un tuffo nelle radici della crosta continentale*, Società Geologica Italiana, GeologicaMente 14
https://www.geologicamente.it/276/geologicamente-numero-14.html

2023 Article on *Fase 1 del progetto DIVE nella Zona Ivrea-Verbano: primo touchdown*, Società Geologica Italiana, GeologicaMente 12
https://www.geologicamente.it/257/ultima- uscita.html

Magma Mia! Deciphering volcano behaviours in the past, present, and future, Athens Science Café

Our Past, Present, and Future Below Our Feet: DIVE Drilling Project, TEDxUGA Talk:
https://www.youtube.com/watch?v=qvVHHZUex3E&ab_channel=TEDxTalks
https://tedxuga.com/the-event-2023/#x-content-band-8

2022 *Top Stories of 2022*, @UGAResearch:
https://research.uga.edu/news/top-ugaresearch-stories-of-2022/

Article on *Mattia Pistone travels through human & geological time*, @UGAResearch:
https://research.uga.edu/news/mattia-pistone-travels-through-human-geological-time/

2021 Article on *Esplorando la zona di transizione tra crosta e mantello continentale: Il progetto DIVE nella Zona Ivrea-Verbano (Alpi, Italia)*, Società Geologica Italiana, GeologicaMente 6, https://doi.org/10.3301/GM.2021.06

Webinar on *Volatile cycle in the Earth's continental crust: A carbon tale from the Ivrea-Verbano Zone (Alps, Italy)*, Tech4Culture: Geodiversity and Geoheritage, University of Turin, Italy.

Article on *Research finds link between CO_2, big volcano eruptions*, @UGAResearch:
https://research.uga.edu/news/research-finds-link-between-co2-big-volcano-eruptions/

2020 Webinar on *Tales of the "Far West" Aleutian Volcanoes: There and Back Again*, Osher Lifelong Learning Institute, University of Georgia, US.

Article on *DE BELLO VULCANICO: 40-year scientific effort of "predicting the unpredictable" since 1980 eruption of Mt St Helens* on EGU Blogs:
https://blogs.egu.eu/divisions/nh/2020/07/06/de-bello-vulcanico/?fbclid=IwAR0WDq0vq_e32o4ARH9gukR8VymlyBaV606JGqY335plIqceT93bqv1kXrU

Essay on *DE BELLO VULCANICO or On The Volcanic War: 40-year scientific effort since May 18, 1980 eruption of Mt St Helens* on New Spotlights of Franklin College of UGA: https://www.franklin.uga.edu/news/stories/2020/40-years-mt-st-helens-eruption

2017 Article on *Lava highway in Kanaga Island* on Imaggeo on Mondays of the EGU Blogs: https://blogs.egu.eu/geolog/2017/03/20/imaggeo-on-mondays-lava-highway-in-kanaga-island/

2016 **Expert scientist** at Q?rius of the Museum of Natural History of the Smithsonian Institution

Article on *Ascensus ad coelum, descensus ad Inferos – Report from the Field - 2015 GeoPRISMS Community Platform in the Aleutians*, GeoPRISMS Newsletter, Issue no. 35, Spring 2016: http://anyflip.com/nnix/uzuv/basic

2013 News from Cabot Institute, University of Bristol: http://www.bristol.ac.uk/cabot/news/2013/278.html

2011-12 **Museum guide** at Focus Terra Museum of ETH-Zurich

Participation to selected schools and workshops

2024 Community Research Prioritization for Volcanoes across the Alaska-Aleutian Arc Workshop (National Science Foundation)

2023 Teaching Petrology Workshop (National Science Foundation)

Reflection on Race Workshop (University of Georgia)

Electric Mobility Summit (University of Georgia)

UGA Academy Teaching Symposium on AI tools

2020 Early Career Workshop (National Science Foundation)

2017 Mt Etna – Deep Carbon Observatory (DCO) Early Career Scientist Workshop (Nicolosi, Italy)

ICDP Workshop DIVE (Drilling the Ivrea-Verbano zonE) (Baveno, Italy)

2016 Second Deep Carbon Observatory (DCO) Summer School, Yellowstone National Park (Montana and Wyoming, US)

2010 Microstructures and Physico-Chemical Properties of Earth and Planetary Materials, Società Italiana di Mineralogia e Petrologia (Verbania-Pallanza, Italy)

Rheology and Physical Properties of Magmas: Controls on Dynamics of Magma Transport, Storage and Eruption (Zürich, Switzerland)

2009-13 4D-Adamello Pro-School (Swiss National Science Foundation)

Awards

2025 2026-2028 Sigma Xi, The Scientific Research Honor Society, Distinguished Lecturer

2024 2024-2025 Geological Society of America – Continental Scientific Drilling Distinguished Lecturer

Student Career Success Influencer Award 2024

2023 First-Year Odyssey Teaching Award, University of Georgia

M.G. Michael Award, Franklin College of Arts and Sciences, University of Georgia

2021 2021-2023 Lilly Teaching Fellowship, University of Georgia

Student Career Success Influencer Award 2021

2020 Outstanding Contribution in Reviewing Award by the Editorial Board of Lithos, Elsevier, Amsterdam, The Netherlands

2019 Outstanding Contribution in Reviewing Award by the Editorial Board of Earth and Planetary Science Letters, Elsevier, Amsterdam, The Netherlands

2017 Outstanding Contribution in Reviewing Award by the Editorial Board of Journal of Volcanology and Geothermal Research, Elsevier, Amsterdam, The Netherlands

2014 EU Transnational Access Programme CALIPSO Award

2012 Outstanding Young Scientist Award by the Earth Magnetism and Rock Physics Division of the EGU: https://www.egu.eu/awards-medals/ospp-award/2012/mattia-pistone/

2008 Excellence Award for Master Student of Earth Sciences, La Sapienza University, Rome, Italy

Research grants with PI, co-PI, or Mentor role (> 100,000 in bold)

Current Funds:

The excess gas paradox at volcanoes: does CO_2 favor gas accumulation in mafic magmas?, National Science Foundation – Division of Earth Science – Petrology and Geochemistry (Award #2322935) [**US$ 442,241**] Role: PI

SAKURA - From Mantle Flow to Magma Migration: A Multiscale Investigation of Lithospheric-Asthenospheric Coupling, Earth Telescope Research Programme of the National Institute of Geophysics and Volcanology of Italy and Ministry of University and Research of Italy **[€ 2,000,000**] Role: co-PI (sole PI not based in an Italian institution)

DIVE: Drilling the Ivrea-Verbano zonE – Phase 1: Drilling into the pre-Permian mafic and felsic lower crust, International Continental Scientific Drilling Program (04-2020) [**US$ 1,000,000**] Role: PI

2025 *SAKURA - From Mantle Flow to Magma Migration: A Multiscale Investigation of Lithospheric-Asthenospheric Coupling*, Earth Telescope Research Programme of the National Institute of Geophysics and Volcanology of Italy and Ministry of University and Research of Italy **[€ 2,000,000**] Role: co-PI (sole PI not based in an Italian institution)

2024 *CLIMAX: Was Chimborazo volcano (Ecuador) the climate modulator leading to the Antonine Plague in the Roman Empire during the second century AD?*, Teaming for Interdisciplinary Research Pre-Seed Program, University of Georgia [US$ 4,250] Role: PI

2023 *The excess gas paradox at volcanoes: does CO_2 favor gas accumulation in mafic magmas?*, National Science Foundation – Division of Earth Science – Petrology and Geochemistry (Award #2322935) [**US$ 442,241**] Role: PI

To be or not be in the Earth? Carbon cycle in the continental crust, M.G. Michael Award, Franklin College of Arts and Sciences, University of Georgia [US$ 3,000] Role: PI

2022 *Tracking Mercury Pollution Sources: Developing an Analytical Method for Measuring Stable Mercury Isotopes in Environmental and Human Biological Samples*, Teaming for Interdisciplinary Research Pre-Seed Program, University of Georgia [US$ 3,500] Role: co-PI

Chimborazo: ESPOCH International Conference, International Travel Fund of the Provost's Office, University of Georgia [US$ 1,850] Role: PI

MERRIE VOLCANO: MErcury Release during eRuptIons at Etna VOLCANO, Office of Research and Office of Global Engagement, University of Georgia, US [US$ 8,000] Role: PI

2021 *BIO-VOLCANO: Rocks, soils, and bioaccumulators as predictors of volcanic eruptions*, Teaming for Interdisciplinary Research Pre-Seed Program, University of Georgia [US$ 4,750] Role: PI

The Role of Deformation in Triggering Volcanic Eruptions, National Science Foundation – Division of Earth Science – Postdoctoral Fellowship to Dr. Amy Ryan (University of Minnesota) [**US$ 174,000**] Role: Mentor

2020 *DE BELLO VULCANICO or The Volcanic War: Forecasting Gas Release versus Retention in Magmas prior to Volcanic Eruptions*, Sarah H. Moss Fellowship, University of Georgia [US$ 10,000] Role: PI

DIVE: Drilling the Ivrea-Verbano zonE – Phase 1: Drilling into the pre-Permian mafic and felsic lower crust, International Continental Scientific Drilling Program (04-2020) [**US$ 1,000,000**] Role: PI out of 7

Felsic melt and gas mobilisation during magma solidification: An experimental study at 1.1 kbar, Swiss National Science Foundation, Open Access Article (PZAC-2_198187) [CHF 2,426] Role: PI

COOLEST VOLCANO: CO_2 stOrage and reLEase at Stromboli VOLCANO, Office of Research and Office of Global Engagement, University of Georgia [US$ 4,000] Role: PI

2019 *Fluids, melts and pressure changes during fracturing of the lower crust*, Terrestrial Magmatic System Research Platform, University of Mainz [€ 8,800] Role: co-PI

Bulk seismic properties of mantle wedge peridotites, Terrestrial Magmatic System Research Platform, University of Mainz [€ 5,000] Role: co-PI

DE BELLO VULCANICO or The Volcanic War: Forecasting Magma Permeability versus Compressibility and Eruption Magnitude, Swiss National Science Foundation – Eccellenza Professorial Fellowship (PCEFP2_186904) Role: PI [**CHF 999,988**] {renounced for the tenure-track Assistant Professorship at the University of Georgia}

2017 *The Deep Carbon Cycle (DCC) through geological time: An interdisciplinary synthesis of the carbon cycle in the Earth's lithosphere-biosphere system*, Alfred P. Sloan Foundation – Deep Carbon Observatory – DCO Synthesis Proposal (G-2017-9997) [**US$ 130,000**] Role: co-PI

2016 *Petrophysics of the Melt Connectivity Transition: Petrological, Rheological, and Seismic Characterisation of the Continental Moho*, Swiss National Science Foundation – Ambizione Fellowship (PZ00P2_168166) [**CHF 483,238**] Role: PI

2014 *Workshop on drilling the continental crust to the Moho transition zone (Ivrea-Verbano Zone, Italy)*, International Continental Scientific Drilling Program (17-2016) [US$ 50,000] Role: PI out of 3

The Influence of Volatiles on the Interaction of Mafic and Felsic Magmas, Swiss National Science Foundation – Advanced Postdoc Mobility Fellowship (P300P2_154574) [CHF 98,000] Role: PI {renounced for the NSF-GeoPRISMS Fellowship at the Smithsonian Institution, Washington, DC, US}

Understanding the dynamics of explosive eruptions triggered by mafic intrusions into felsic reservoirs using 4D in situ tomographic microscopy, European Union Transnational Access Programme CALIPSO (number 312284; FP7/2007-2013) [€ 1,000] Role: PI

2012 *The Influence of Volatiles on the Interaction of Mafic and Felsic Magmas*, Swiss National Science Foundation – Early Postdoc Mobility Fellowship (PBEZP2_142922) [CHF 43,000] Role: PI

2009-21 Free-of-cost access to synchrotron and nuclear facilities: eight for TOMCAT beamline, SLS, PSI and one for NEUTRA beamline, SINQ, PSI (Villigen, Switzerland), one for SYRMEP beamline, Elettra (Basovizza, Italy), one for ID19 beamline, ESRF (Grenoble, France), and two for GSECARS beamline, APS (Argonne, IL, US) [all combined proposals: **US$ 920,000**] Role: PI

Instructional grants with PI, co-PI, or Mentor role (> 100,000 in bold)

2024 *4D PETROLAB: The Art of Grinding and Polishing Geomaterials*, Teaching Enhancement and Innovation Fund [US$ 3,000] Role: PI

Global Citizenship Cluster - Natural Hazards and Critical Metals: Geology as the Answer to Climate Crisis and Geopolitical Concerns, First-Year Odyssey Program, UGA – Franklin College of Arts & Science [US$ 3,500] Role: PI

MAGMA MIA! Understanding active volcanoes with modern petrology, First-Year Odyssey Program, UGA – Franklin College of Arts & Science [US$ 3,500] Role: PI

2023 First-Year Odyssey Teaching Award, University of Georgia [US$ 2,500] Role: PI

Global Citizenship Cluster - Natural Hazards and Critical Metals: Geology as the Answer to Climate Crisis and Geopolitical Concerns, First-Year Odyssey Program, UGA – Franklin College of Arts & Science [US$ 3,500] Role: PI

2022 *Lilly Teaching Fellowship*, UGA Center For Teaching & Learning [US$ 2,000] Role: PI

Studies of Hazards (SHAZARDS) in Geology, GradFIRST Seminar Program, UGA – Franklin College of Arts & Science [US$ 3,500] Role: PI

MAGMA MIA! Understanding active volcanoes with modern petrology, First-Year Odyssey Program, UGA – Franklin College of Arts & Science [US$ 3,500] Role: PI

Journey into the Earth's interior: exploring the origin, architecture, and dynamics of continents, First-Year Odyssey Program, UGA – Franklin College of Arts & Science [US$ 3,500] Role: PI

Flow or blow? Understanding the physics of gas accumulation leading to explosive volcanic eruptions through experiential learning in lab and class with a gas pycnometer, UGA Learning Technologies Grant [US$ 18,470] Role: PI

2021 *Replicating minerals to volcanoes by 3D printing technology: bringing 3D geology across scales into the classroom and in the field*, UGA Learning Technologies Grant [US$ 9,984] Role: PI

MAGMA MIA! Understanding active volcanoes with modern petrology, First-Year Odyssey Program, UGA – Franklin College of Arts & Science [US$ 3,500] Role: PI

Writing Fellows, UGA – Center for Teaching and Learning [US$ 1,000] Role: PI

Faculty Interest Group, UGA – Center for Teaching and Learning [US$ 1,000] Role: PI

2020 *MAGMA MIA! Understanding active volcanoes with modern petrology*, First-Year Odyssey Program, UGA – Franklin College of Arts & Science [US$ 3,842] Role: PI

Rock Digitalization for Optical Microscopy, UGA – Franklin College of Arts & Science [US$ 1,147] Role: PI

4D PETROLAB: A New Digital Frontier for Learning Optical Microscopy of Geological Materials in 3D Space and Real-Time, UGA Learning Technologies Grant [US$ 24,263] Role: PI

Peer-reviewed publication list

Articles:

2025

Pistone M, Toy VG, Formo E, Robyr M (2025) Can pseudotachylytes form via fracture-induced decompression melting under hydrous conditions?. *Tektonika*, accepted, in press.

Narduzzi F, Covelli S, Floreani F, Pavoni E, Petranich E, Jantzi SC, **Pistone M**, Černok A, Venier M, Crosera M, Ziberna L (2025) Strengths and weaknesses of the analytical techniques used for measuring low mercury concentrations (< 10 ng g^{-1}) in crystalline rocks: Direct Mercury Analyzer versus Cold-Vapour-Atomic-Fluorescence-Spectroscopy. *Geostandards and Geoanalytical Research*, https://doi:10.1111/ggr.12606

2024

Ryan AG, Hansen LN, Dillman A, **Pistone M**, Zimmerman ME, Williams SA (2024) Shear-induced dilation and dike formation during mush deformation. *Earth and Planetary Science Letters*, 651, https://doi.org/10.1016/j.epsl.2024.119164

Li J, Caspari E, Greenwood A, Pierdominici S, Lemke K, Venier M, Kück J, Baron L, **Pistone M**, Petri B, Ziberna L, Hetényi G (2024) Integrated rock mass characterization of the lower continental crust along the ICDP-DIVE 5071_1_B borehole in the Ivrea-Verbano Zone. *Geochemistry, Geophysics, Geosystems*, 25, e2024GC011707, https://doi.org/10.1029/2024GC011707

Herbst T, Whittington AG, **Pistone M**, Schiffbauer JD, Selly T (2024) Release the cracking: Controls on gas retention in crystal-rich magmas. *Bulletin of Volcanology*, 86, https://doi.org/10.1007/s00445-024-01747-3

Hetényi G, Baron L, Scarponi M, Subedi S, Michailos K, Dal F, Gerle A, Petri B, Zwahlen J, Langone A, Greenwood A, Ziberna L, **Pistone M**, Zanetti A, Müntener O (2024) Report on an open dataset to constrain the Balmuccia peridotite body (Ivrea-Verbano Zone, Italy) through a participative gravity-modelling challenge. *Swiss Journal of Geoscience*, 117, https://doi.org/10.1186/s00015-023-00450-3

2023

Sarmiento FO, Haller A, Marchant C, Yoshida M, Leigh DS, Woosnam K, Porinchu DF, Gandhi K, King EG, **Pistone M**, Kavoori A, Calabria J, Alcántara-Ayala I, Chávez R, Gunya A, Yépez A, Lee S, Reap J (2023) 4D Global Montology: Toward convergent and transdisciplinary mountain sciences across time and space. *Pirineos*, 178, e075, https://doi.org/10.3989/pirineos.2023.178001

2022

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Invited seminars (*) and webinars (**), and Distinguished Lecture (***) and webinar (****) ——

***(June 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Scripps Institution of Oceanography, University of California in San Diego, US.

*(May 2025) *Database: Whole rock data for the Western Aleutians*, Community Research Prioritization for Volcanoes across the Alaska-Aleutian Arc Workshop – National Science Foundation, University of Alaska in Anchorage, US.

***(May 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Lamont Doherty Observatory, Columbia University, US.

***(April 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, School of Sustainability, Stanford University, US.

***(April 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, United States Geological Survey in NASA Ames Research Park, US.

***(April 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Geosciences, University of Alaska Fairbanks, US.

***(April 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Geosciences, University of Arizona, US.

***(March 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Geology and Geophysics, University of Utah, US.

***(March 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, School of Earth, Environment and Sustainability, Georgia Southern University, US.

***(March 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Geological Sciences and Engineering, University of Nevada in Reno, US.

***(February 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Earth and Planetary Sciences, University of Texas in San Antonio, US.

***(February 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Geological Sciences, University of Missouri, US.

***(January 2025) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Geology, University of Georgia, US.

***(December 2024) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Earth Sciences, University of Rome La Sapienza, Italy.

***(December 2024) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, School of Earth, Environment and Sustainability, Missouri State University, US.

****(November 2024) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Earth and Environmental Sciences, University of Ottawa, Department of Earth Sciences, Carleton University, Geological Survey of Canada, Canada.

***(October 2024) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Geological Sciences, University of Florida, US.

*(October 2024) *Does CO_2 increase the level of gas accumulation in magmas prior to eruptions? Lessons from Mt Etna (Italy)*, Department of Geological Sciences, University of Florida, US.

***(October 2024) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Earth and Space Sciences, West Chester University, US.

***(October 2024) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Earth and Environmental Sciences, Western Michigan University, US.

****(October 2024) *Moho Mission to the Foundation of Continents: The ICDP DIVE Drilling Project*, Geological Society of America – Continental Scientific Drilling Distinguished Lecture, Department of Atmospheric, Oceanic & Earth Sciences, George Mason University, US.

*(August 2024) *How to Decipher Eruptive Dynamics and Impact using Rocks, Heavy Metals, and Pop Volcanoes*, Savannah Research Ecology Laboratory, University of Georgia, US.

**(May 2023) *Lessons from the ICDP–DIVE project exploring the roots of magmatic plumbing systems in the lower continental crust*, Workshop on Genesis and dynamics of large calderas: Campi Flegrei and Campanian Plain, Naples, Italy.

*(Nov 2022) *Magma Mia! What happens before a volcanic eruption? Analysis of magma unrest using laboratory-scale in situ, time-resolved techniques*, Department of Geosciences and Geological and Petroleum Engineering, Missouri University of Science and Technology, US.

**(Nov 2022) *De Bello Vulcanico*, Department of Engineering and Geology, Università Gabriele D'Annunzio Chieti-Pescara, Italy, https://www.youtube.com/watch?v=6oMMXMQXpaU&ab_channel=Geologi%40Ud%27A

**(May 2022) *DE BELLO VULCANICO*, Department of Earth Sciences, University of Pavia, Italy.

*(Apr 2022) *How, How Fast, How Big will the Volcano Erupt? Lessons from Chimborazo Volcano*, 50th Anniversary of Escuela Superior Politécnica de Chimborazo International Conference, Riobamba, Ecuador.

*(March 2022) *How, How Fast, How Big will the Volcano Erupt?: Deciphering Magma Transport, Unrest, and Eruption using Transdisciplinary Approaches*, Department of Geology and Geophysics, Louisiana State University, US.

*(Feb 2022) *Volcanomania*, Warnell School of Forestry and Natural Resources, University of Georgia, US.

*(Oct 2021) *How, How Fast, How Big will the Volcano Erupt?: Deciphering Magma Transport, Unrest, and Eruption using Transdisciplinary Approaches*, Department of Geosciences, University of Fribourg, Switzerland.

*(Sep 2021) *Magmas and volcanoes: Decoding the chemical signals leading to magma unrest and eruption*, Department of Chemistry, Franklin College of Arts and Sciences, University of Georgia, US.

**(Apr 2021) *DE BELLO VULCANICO*, Department of Earth Sciences, University of Pavia, Italy.

**(Feb 2021) *DE BELLO VULCANICO: the competition between gas storage and gas release in magmatic systems prior to eruptions*, School of Geographical and Earth Sciences, University of Glasgow, United Kingdom.

**(Dec 2020) *DE BELLO VULCANICO: the competition between gas storage and gas release as a function of magma rheology and geochemistry of excess fluids*, Department of Earth Sciences, Royal Holloway University of London, United Kingdom.

**(Oct 2020) *Drilling the Ivrea-Verbano zonE (DIVE): Diving into the pillars of the Earth's continental crust*, Department of Earth, Environment, and Resources, Università degli Studi di Napoli Federico II, Italy.

*(Feb 2020) *DE BELLO VULCANICO: Constraining gas storage versus release in magmas*, Department of Earth and Environmental Sciences, Vanderbilt University, US.

*(Nov 2019) *DE BELLO VULCANICO: Constraining gas storage versus release in magmas and eruption magnitude of active volcanoes*, Department of Geological Sciences, University of Florida, US.

*(Oct 2019) *ICDP Proposal on Drilling the Ivrea-Verbano zonE (DIVE)*, International School on "Structure and Composition of the Lower Continental Crust", University of Pavia, Italy.

*(Oct 2019) *DE BELLO VULCANICO: Constraining rheology, permeability, and compressibility of magmas and eruption magnitude of active volcanoes*, Institute of Geosciences, University of Mainz, Germany.

*(Apr 2019) *Melt, volatile, and magma transport in the Earth's crust: A petrological trilogy*, Department of Geology, University of Georgia, US.

*(Mar 2019) *DE BELLO VULCANICO: Constraining rheology, permeability, and compressibility of magmas and eruption magnitude of active volcanoes*, School of Earth and Environment, University of Leeds, United Kingdom.

*(Feb 2019) *DE BELLO VULCANICO: Constraining rheology, permeability, and compressibility of magmas and eruption magnitude of active volcanoes*, Department of Geology, University at Buffalo, US.

*(Nov 2018) *Magmatic fluid extraction from the Earth's crust to volcanoes*, Bayerisches Geoinstitut, University of Bayreuth, Germany.

*(Oct 2018) *DIVE into the pillars of Earth: Drilling into the Ivrea-Verbano zonE*, Deep Carbon Observatory Executive Committee Meeting, Department of Earth Sciences, ETH-Zurich, Switzerland.

*(Apr 2018) *Geochemical cycles and carbon fluxes from Large Igneous Provinces*, Deep Carbon Observatory Workshop, Department of Earth Sciences, University of Cambridge, United Kingdom.

*(Jan 2018) *Melt extraction during heating and cooling of felsic crystal mushes: an experimental study*, Journée Magmatique, Department of Earth Sciences, ETH-Zurich, Switzerland.

*(Dec 2017) *Yet it moves: melt migration processes during magma solidification*, Department of Earth Sciences, University of Geneva, Switzerland.

*(Nov 2017) *Melt extraction processes in multiphase magmas: from the Earth's crust to volcanoes*, Department of Earth Sciences, University of Milan, Italy.

*(Mar 2017) *Chemistry and physics of multiphase magmas: insights into melt extraction processes*, Department of Earth Sciences, University of Uppsala, Sweden.

*(Mar 2017) *Chemistry and physics of multiphase magmas: insights into melt extraction processes*, Department of Earth Sciences, University of Toronto, Canada.

*(Feb 2016) *Chemistry and physics of multiphase magmas: insights into magma transport, storage, and eruption*, Department of Earth, Marine, and Environmental Sciences, University of Chapel Hill, NC, US.

*(Jan 2016) *3D and 4D insights into geological samples and processes using X-ray tomographic microscopy*, Geological Society of Washington, Cosmos Club, Washington, DC, US.

*(Nov 2015) *Chemistry and physics of multiphase magmas: insights into magma transport, storage, and eruption*, Geophysical Laboratory, Carnegie Institution for Science, Washington, DC, US.

*(Oct 2015) *Chemistry and physics of multiphase magmas: insights into magma transport, storage, and eruption*, Department of Geology, University of Maryland, College Park, MD, US.

*(Jul 2015) *3D and 4D insights into geological samples and processes using X-ray tomographic microscopy*, Air and Space Museum, Smithsonian, Washington, DC, US.

*(Apr 2015) *Water-driven undercooling during the interaction between mafic and felsic hydrous magmas*, Centre of Lithosphere of Geological Survey, Prague, Czech Republic.

*(Mar 2015) *Water-driven undercooling during the interaction between mafic and felsic hydrous magmas*, Department of Geosciences, Virginia Tech, Blacksburg, VA, US.

*(Sep 2014) *4D Experiments with Synchrotron-based X-ray Tomographic Microscopy: The New Frontier of the Experimental Volcanology*, Elettra Synchrotron, Basovizza, Italy.

*(Jun 2014) *The influence of volatiles during mafic and felsic magma interaction*, Faculty of Geoscience and Geography, Georg-August-Universität, Göttingen, Germany.

*(Apr 2014) *The influence of volatiles during mafic and felsic magma interaction*, Department of Geological Sciences, Washington University in St Louis, MO, US.

*(Apr 2014) *The influence of volatiles during mafic and felsic magma interaction*, Department of Geological Sciences, University of Missouri, Columbia, MO, US.

*(Apr 2013) *Rheology of crystal- and bubble-bearing magmas: insights into volcanic conduit dynamics*, European Geophysical Union Conference, Vienna, Austria.

Conference poster [@], PICO [ç], and oral presentations [#]; supervised students (*) ————

1. Lang A.G.*, Andronico D., Caruso S., Corsaro R.A., Cristaldi A., **Pistone M.** (2025) *Do shape and size of erupted tephra reflect their porosity? An investigation of representative tephra from explosive eruptions at Mt Etna (Italy)*, IAVCEI 2025 (Geneva, Switzerland) [@]
2. Lang A.G.*, Grace Cantele G.E.*, Daniel C.*, Jantzi S.C., Xu X., Yasar D., Schroeder P.A., Gandhi K., Barnes B.F., Villari C., Bobrowski N., Corsaro R.A., Thompson A., Cherkinsky A., Dutta A., Duttagupta S., **Pistone M.** (2025) *How does volcanic mercury impact the environment? A time-integrated analysis of mercury dispersion and accumulation in plants, insects, and soils at Mt Etna (Italy)*, IAVCEI 2025 (Geneva, Switzerland) [@]

3. **Pistone M.** Oxhorn S., Coombs M., Grant E., Sheppard K., Cottrell E., Kelley K. (2025) *Go west where calc-alkaline and tholeiitic magmas erupt*, NSF-sponsored Alaska-Aleutian Arc Workshop (Anchorage, AK, US) [#]

4. Clark S., Locmelis M., Moroni M., Sessa G., **Pistone M.**, Funke J.*, Elliott S. (2025) *Understanding lower crustal sulfide ore systems: Insights from ultramafic pipes in the Ivrea-Verbano Zone, Italy*, SGA 2025 (Golden, CO, US) [#]

5. Tonietti L., Corso D., Cascone M., Esposito M., Brusca J., Longo A., Barosa B., Eckert E.M., Venier M., Cordone A., Kallmeyer J., Greenwood A., Hetényi G., Müntener O., **Pistone M.**, Zanetti A., Ziberna L., Giovannelli D. (2025) *Microbial characterization of deep-waters from a borehole within the Ivrea-Verbano Zone*, EGU 2025 (Vienna, Austria) [#]

6. Venier M., Beltrame M., Corradetti A., Del Rio M., Hawemann F., Müntener O., Narduzzi F., **Pistone M.**, Toy V., Ziberna L. (2025) *Carbonated ultramafic rocks in the Balmuccia layered series, Ivrea-Verbano Zone, Italy*, EGU 2025 (Vienna, Austria) [#]

7. Mansouri H., Elyaszadeh R., Toy V.G., **Pistone M.**, Ohl M., Wheeler J., Fan S. (2025) *Deformation mechanisms and strain localization in ultramafic rocks: Insights from the Balmuccia and Finero peridotites, Ivrea-Verbano Zone*, EGU 2025 (Vienna, Austria) [@]

8. Müntener O., Hetényi G., Greenwood A., Ziberna L., Zanetti A., **Pistone M.**, Giovannelli D., Venier M., DIVE Drilling Project Science Team (2025) *From the lower crust towards the crust–mantle transition zone: Initial results from the ICDP DIVE project*, EGU 2025 (Vienna, Austria) [#]

9. Secrétan A., Degen S., Pacchiega L., Li J., **Pistone M.**, Hermann J., Müntener O., DIVE Drilling Project Science Team (2025) Geochemical characteristics of lower continental crust metasediments: insights from the DIVE Project (5071_1_B, Val d'Ossola, Ivrea-Verbano Zone, Italy), EGU 2025 (Vienna, Austria) [@]

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109. **Pistone M.**, Caricchi L., Ulmer P., Burlini L. (2010). *Large strain experiments on crystal- and bubble-bearing felsic magmas*. EMPG XIII (Toulouse, France) [#]

110. **Pistone M.**, Caricchi L., Ulmer P., Burlini L. (2010). *The brittle-ductile transition in crystal- and bubble-bearing magmas*. EMPG XIII (Toulouse, France) [@]

111. **Pistone M.**, Caricchi L., Ulmer P., Burlini L. (2010) *The Complex Rheology of Magmas: An Experimental Study*. EPFL First Doctoral Conference in Mechanics (Lausanne, Switzerland) [#]

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120. Masotta M., **Pistone M.**, Trigila R. (2007). *La determinazione di P, T, X_i^M per la definizione dimensionale delle camere magmatiche a partire dai prodotti eruttati: il caso dell'eruzione di Monte Nuovo (Campi Flegrei) nel 1538.* 25th GNGTS (Roma, Italy) [#]

Experimental, analytical, and computational experience

Experimental Facilities:
HT-HP Paterson-type rock deformation apparatus; HIP large capacity apparatus; Permeameter; HT Muffle; End-Loaded Piston-Cylinder; Cold-seal Vessel; TZM and HMC vessel.

Analytical Facilities:
EPMA; FEG-EPMA; SEM; FEG-SEM; STEM; SIMS; Mössbauer Spectroscopy; XRF; XRD; KFT; CO_2-Coulometry; FTIR; Raman Spectroscopy; micro-XANES; synchrotron X-ray microtomography and laser *and* induction heating systems for in-situ, time-resolved HT experiments; neutron tomography.

Computational Codes:
Operative Systems: Windows; Macintosh; Linux. Public domain software: ImageJ; JMicroVision; ParaView; Blob3D; Quant3D; Perple_X; MELTS. Other codes: MATLAB; Avizo® Fire; Adobe.

Fieldwork experience

2024 Mt Etna, Italy: fall-out tephra from paroxysm to Plinian events and volcanic soils

2023 DIVE project at the drill site DT-1a in Megolo di Mezzo, Ivrea-Verbano Zone (Italy)

Chimborazo volcano, Ecuador: fall-out, surge, and pyroclastic flow deposits

Lipari, Aeolian Islands (Italy): Rocche Rosse obsidian lava flow, Lami and Mt Pilato pyroclastic fall-out deposits

2022 Mt Etna, Italy: fall-out tephra and lava flow deposits

Chimborazo volcano, Ecuador: fall-out, surge, and pyroclastic flow deposits

Ivrea-Verbano Zone (Italy): ore deposits from lower to middle crust

2021 Graves Mountain, Georgia: metavolcanics, rutile and kyanite mine

Ivrea-Verbano Zone (Italy): lower to middle crust and mantle rocks

2020 Stone Mountain, Arabia Mountain, Georgian Appalachians: granites, gneisses, migmatites

2018 Sondalo and Val Malenco (Italy): lower to middle crust and mantle rocks, serpentinization

2017 Ivrea-Verbano Zone (Italy): lower to middle crust and mantle rocks

Cascade volcanoes (OR and WA, US): andesite to dacite volcanoes (Mt St Helens, Mt Hood, Newberry, Crater Lake), large igneous province of Columbia River

2015 Western Aleutians (AK, US): tholeiitic and calc-alkaline volcanic tephra and lava rocks

St Leonhard (Austria): mid-crustal granulites and eclogites

2013 Guernsey (Channel Islands): granite and diorite mixing and mingling

Cornwall (United Kingdom): porphyry ore deposits

2012 Torres del Paine (Chile) and Fitz Roy (Argentina): pluton mechanics and contact aureole

Lipari, Aeolian Islands (Italy): Rocche Rosse obsidian lava flow

2010 Mono Crater, Onion Valley, Sawmill Creek, Big and Little Glass Mountain, Mount Shasta, Sierra Nevada (CA, US): mid- and upper crustal granitoid plutons to silica-rich volcanic domes

2009 Tenerife and La Palma, Canary Islands (Spain): caldera-forming ignimbrite and lava flow deposits

Adamello Massif (Italy): pluton emplacement, magma mingling, and contact aureole

2007 Somma-Vesuvius (Italy): fallout pumice deposits of Avellino Plinian Eruption

Monte Nuovo, Phlegrean Fields (Italy): phreatomagmatic to magmatic eruption style deposits