

Employment

- 2014- **University of Oregon, Eugene OR.** Associate Professor of Earth Sciences.
- 2006-2014 **University of Oregon, Eugene OR.** Assistant Professor of Earth Sciences.
- 2000-2014 **Carnegie Institution of Washington, DC.** Visiting Investigator in Department of Terrestrial Magnetism
- 1999-2006 **University of Oregon, Eugene OR.** Courtesy Research Associate in Geological Sciences.
- 1997-2000 **Carnegie Institution of Washington, DC.** Carnegie Postdoctoral Fellow in Department of Terrestrial Magnetism.
- 1997 **Woods Hole Oceanographic Institution, MA.** Postdoctoral Investigator.
- 1991-1996 **Joint Program in Oceanography Massachusetts Institute of Technology/Woods Hole Oceanographic Institution, MA.** Graduate Research Assistant.
- 1989 **Pacific Geoscience Center, Sidney, BC, Canada.** Summer Research Assistant.

Education

- 1991-1996 **Joint Program in Oceanography Massachusetts Institute of Technology/Woods Hole Oceanographic Institution, MA.** Ph.D. Marine Geophysics
Ph.D. Advisor: Robert S. Detrick
Thesis: "The Influence of Magma Supply and Eruptive Processes on Axial Morphology, Crustal Construction and Magma Chambers at Mid-Ocean Ridges."
- 1990-1991 **College Year in Athens, Greece.**
Courses in art, archaeology, history & modern Greek.
- 1986-1990 **Trinity College, University of Toronto, Canada.** B.Sc. magna cum laude.
Specialized in Physics, Major in Astronomy, Minor in Mathematics.

Publications

Metrics. Total publications: 51, total citations: 1542; h-index 22; i-index: 32

Refereed Journal Papers (* indicates student first author):

1. *McVey, B.G., **E.E.E. Hooft**, B.A. Heath, D.R. Toomey, M. Paulatto, J.V. Morgan, P. Nomikou, C.B. Papazachos, Magma accumulation beneath Santorini volcano from P-wave tomography, *Geology*, doi:10.1130/G47127.1, 2020.
2. Paulatto, M., M. Moorkamp, S. Hautmann, **E. Hooft**, J. V. Morgan, R.S.J. Sparks, Vertically extensive magma reservoir revealed from joint inversion and quantitative interpretation of seismic and gravity data, *Journal of Geophysical Research*, doi: 2019.10.1029/2019JB018476, 2019.
3. *Heath, B.A., **E. E. E. Hooft**, D.R. Toomey, C.B. Papazachos, P. Nomikou, M. Paulatto, J.V. Morgan, M.R. Warner, Tectonism and its relation to magmatism around Santorini volcano from

- upper crustal P-wave velocity, *Journal of Geophysical Research*, JGRB53679, doi: 10.1029/2019JB017699, 2019.
4. **Hooff, E. E. E.**, B.A. Heath, D.R. Toomey, M. Paulatto, C.B. Papazachos, P. Nomikou, J.V. Morgan, M.R. Warner, Seismic imaging of Santorini: Subsurface constraints on caldera collapse and present-day magma recharge. *Earth and Planetary Science Letters*, 514, 48–61, doi:10.1016/j.epsl.2019.02.033, 2019.
 5. *Arnoux, G.M., D.R. Toomey, **E.E.E. Hooff**, W.S.D. Wilcock, Seismic imaging and physical properties of the Endeavour segment: Evidence that skew between mantle and crustal magmatic systems governs spreading center processes, *Geochem. Geophys. Geosyst.*, doi: 10.1029/2018GC007978, 2019.
 6. *Kim, E., D.R. Toomey, **E.E.E. Hooff**, W.S.D. Wilcock, R.T. Weekly, S-M. Lee, YH. Kim, Upper crustal V_p/V_s ratios at the Endeavour segment, Juan de Fuca Ridge, from joint inversion of P and S travel times: Implications for hydrothermal circulation, *Geochem. Geophys. Geosyst.*, doi: 10.1029/2018GC007921, 2019.
 7. *Bodmer, M., D.R. Toomey, **E.E.E. Hooff**, B. Schmandt, Buoyant Asthenosphere Beneath Cascadia Influences Megathrust Segmentation, *Geophys. Res. Lett.*, doi: 10.1029/2018GL078700, 2018.
 8. *Heath, B. A., **E. E. E. Hooff**, and D. R. Toomey, Autocorrelation of the seismic wavefield at Newberry Volcano: Reflections from the magmatic and geothermal systems, *Geophys. Res. Lett.*, doi: 10.1002/2017GL076706, 2018.
 9. *Byrnes, J.S., D.R. Toomey, **E.E.E. Hooff**, J. Nabalek, J.M. Braunmiller, Mantle dynamics beneath the discrete and diffuse plate boundaries of the Juan de Fuca plate: Results from Cascadia Initiative body wave tomography, *Geochem. Geophys. Geosyst.*, doi: 10.1002/2017GC006980, 2017.
 10. **Hooff, E.E.E.**, P. Nomikou, D.R. Toomey, D. Lampridou, C. Getz, M.-E. Christopoulou, D. O'Hara, G.M. Arnoux, M. Bodmer, M. Gray, B.A. Heath, B.P. VanderBeek, Backarc tectonism, volcanism, and mass wasting shape seafloor morphology in the Santorini-Christiana-Amorgos region of the Hellenic Volcanic Arc, *Tectonophysics*, doi: 10.1016/j.tecto.2017.06.005, 2017.
 11. *Arnoux, G.M., D.R. Toomey, **E.E.E. Hooff**, W.S.D. Wilcock, J. Morgan, M. Warner, and B. P. VanderBeek, Seismic evidence that black smoker heat flux is influenced by localized magma replenishment and associated increases in crustal permeability, *Geophys. Res. Lett.*, 44, doi:10.1002/2016GL071990, 2017.
 12. *VanderBeek, B., D.R. Toomey, **E.E.E. Hooff**, W.S.D. Wilcock, Segmentation of mid-ocean ridges attributed to oblique mantle divergence, *Nature GeoSciences*, 9, doi:10.1038/NGeo2745, 2016.
 13. *Soule, D., W.S.D. Wilcock, D.R. Toomey, **E.E.E. Hooff**, and R.T. Weekly, Near-axis crustal structure and thickness of the Endeavour Segment, Juan de Fuca Ridge, *Geophys. Res. Lett.*, 43, doi:10.1002/2016GL068182, 2016.
 14. Morgan, J., M. Warner, G. Arnoux, **E. Hooff**, D. Toomey, B. VanderBeek, W. Wilcock, Next-generation seismic experiments – II: wide-angle, multi-azimuth, 3-D, full-waveform inversion of sparse field data, *Geophys. Jour. Internl*, 204, 1342-1363, doi: 10.1093/gji/ggv513, 2016.
 15. *Heath, B. A., **E. E. E. Hooff**, D. R. Toomey, and M. J. Bezada, Imaging the magmatic system of Newberry Volcano using joint active source and teleseismic tomography, *Geochem. Geophys. Geosyst.*, 16, doi:10.1002/2015GC006129/full, 2015.
 16. *Bodmer, M., D. R. Toomey, **E. E. Hooff**, J. Nábělek, and J. Braunmiller, Seismic anisotropy beneath the Juan de Fuca plate system: Evidence for heterogeneous mantle flow, *Geology*, G37181.1, doi:10.1130/G37181.1, 2015.
 17. *Byrnes, J.S., **E.E.E. Hooff**, D.R. Toomey, D.R. Villagómez, D.M. Geist, S.C. Solomon, An upper mantle seismic discontinuity beneath the Galápagos Archipelago and its implications for studies

- of the lithosphere-asthenosphere boundary, *Geochemistry, Geophysics, Geosystems*, doi: 10.1003/2014Gc005694, 2015.
18. Brandsdóttir, B., **Hooff, E.E.E.**, R. Mjelde, and Y. Murai, Origin and Evolution of the Kolbeinsey Ridge and Iceland Plateau, N-Atlantic, *Geochemistry, Geophysics, Geosystems*, doi: 10.1002/2014GC005540, 2015.
 19. Toomey, D.R., R.M. Allen, A.H. Barclay, S.W. Bell, P.D. Bromirski, R.L. Carlson, J.A. Collins, R.P. Dziak, B. Evers, D.W. Forsyth, P. Gerstoft, **E.E.E. Hooff**, D. Livelybrooks, J.A. Lodewyk, D.S. Luther, J.J. McGuire, S.Y. Schwartz, M. Tolstoy, A.M. Tréhu, M. Weirathmueller, W.S.D. Wilcock, The Cascadia Initiative: A Sea Change In Seismological Studies of Subduction Zones, *Oceanography* 27(2):138–150, doi: 10.5670/oceanog.2014.49, 2014.
 20. *Villagómez D.R., D.R. Toomey, D.J. Geist, **E.E.E. Hooff**, S.C. Solomon, Seismic imaging reveals mantle flow and multistage melting beneath the Galápagos, *Nature Geoscience*, doi: 10.1038/NGEO2062, 2014.
 21. *Weekly, R.T., W.S.D. Wilcock, D.R. Toomey, **E.E.E. Hooff**, E. Kim, Upper crustal seismic structure of the Endeavour Segment, Juan de Fuca Ridge from travel time tomography: Implications for oceanic crustal accretion, *Geochemistry, Geophysics, Geosystems*, doi:10.1002/2013GC005159, 2014.
 22. *Weekly R.T., W.S.D. Wilcock, **E.E.E. Hooff**, D. Toomey, P. McGill, D. Stakes, Termination of a decadal-scale ridge-spreading event observed using a seafloor seismic network on the Endeavour Segment, Juan de Fuca Ridge, *Geochemistry, Geophysics, Geosystems*, doi: 10.1002/ggge.20105, 2013.
 23. *Beachly M., **E.E.E. Hooff**, D. Toomey, G. Waite, Upper crustal structure of Newberry Volcano from P-wave tomography and finite difference waveform modeling, *Journal of Geophysical Research*, 117, B10311, doi:10.1029/2012JB009458, 2012.
 24. Kelley, D.S. S M. Carbotte, D. Clague, D.W. Caress, J. Delaney, J.B. Gill, H. Hadaway, J.F. Holden, **E.E.E. Hooff**, J.P. Kellogg, M.D. Lilley, M. Stoermer, D. Toomey, R. Weekly, and W.S.D. Wilcock, Endeavour segment of the Juan de Fuca Ridge, one of the most remarkable places on Earth, *Oceanography* 25(1):44–61, doi:10.5670/oceanog.2012.03, 2012.
 25. *Villagómez D.R., D.R. Toomey, **E.E.E. Hooff**, S.C. Solomon, Crustal structure beneath the Galápagos Archipelago from ambient noise tomography and its implications for plume-lithosphere interactions, *Journal of Geophysical Research*, 116, B04310, doi:10.1029/2010JB007764, 2011.
 26. **Hooff, E. E. E.**, H. Patel, W. S. D. Wilcock, K. Becker, D. A. Butterfield, E. E. Davis, R. Dziak, K. Inderbitzen, M. D. Lilley, P. McGill, D. R. Toomey, D. Stakes, A seismic swarm and regional hydrothermal and hydrologic perturbations: the northern Endeavour segment, February 2005, *Geochemistry, Geophysics, Geosystems*, Q12015, doi:10.1029/2010GC003264, 2010.
 27. Wilcock, W. S. D., **E. E. E. Hooff**, D. R. Toomey, P. R. McGill, A. H. Barclay, D. S. Stakes, and T. M. Ramirez, The role of magma injection in localizing black smoker activity, *Nature Geoscience*, 2, 509-513, doi:10.1038/ngeo550, 2009.
 28. Toomey, D.R. and **E.E.E. Hooff**, Mantle upwelling, magmatic differentiation, and the meaning of axial depth at fast-spreading ridges, *Geology*, 36, 679-682, doi:10.1130/G24834A.1, 2008.
 29. *Villagómez, D.R., D.R. Toomey, **E.E.E. Hooff**, S.C. Solomon, Upper Mantle Structure Beneath the Galápagos Archipelago from Surface Wave Tomography, *Journal of Geophysical Research*, 112, B07303, doi:10.1029/2006JB004672, 2007.
 30. **Hooff, E.E.E.**, B. Brandsdóttir, R. Mjelde, H. Shimamura, and Y. Murai, Asymmetric Plume-Ridge Interaction Around Iceland: The Kolbeinsey Ridge Seismic Experiment, *Geochemistry, Geophysics, Geosystems*, 7, Q05015, doi:10.1029/2005GC001123, 2006.

31. *Fontaine, F., **E.E.E. Hooff**, P. Burkett, D.R. Toomey, S.C. Solomon, and P.G. Silver, Shear-wave Splitting Beneath the Galápagos Archipelago, *Geophysical Research Letters*, 32, doi:10.1029/2005GL024014, 2005.
32. **Hooff E.E.E.**, D.R. Toomey, and S.C. Solomon, Anomalously Thin Transition Zone Beneath the Galápagos Hotspot, *Earth and Planetary Science Letters*, 216, 55-64, 2003.
33. **Hooff, E.E.E.**, R.S. Detrick, D.R. Toomey, J.A. Collins, and J. Lin, Crustal Thickness and Structure along the Axial Valley of Three Contrasting Spreading Segments of the Mid-Atlantic Ridge, 33.5°-35°N, *Journal of Geophysical Research*, 105, 8205-8226, 2000.
34. **Hooff, E.E.E.**, R.S. Detrick, and G.M. Kent, Seismic Structure and Indicators of Magma Budget along the Southern East Pacific Rise, *Journal of Geophysical Research*, 102, 27,319-27,340, 1997.
35. Canales, J.P., J.J. Dañobeitia, R.S. Detrick, **E.E.E. Hooff**, R. Bartolomé, and D. Naar, Variations in Axial Morphology along the Galápagos Spreading Center and the Influence of the Galápagos Hotspot, *Journal of Geophysical Research*, 102, 27,341-27,354, 1997.
36. **Hooff, E.E.E.**, H. Schouten, and R.S. Detrick, Constraining Crustal Emplacement Processes from the Variation of Seismic Layer 2A Thickness at the East Pacific Rise, *Earth and Planetary Science Letters*, 142, 289-309, 1996.
37. **Hooff, E.E.E.**, and R.S. Detrick, The Relationship between Axial Morphology, Crustal Thickness, and Mantle Temperatures along the Juan de Fuca and Gorda Ridges, *Journal of Geophysical Research*, 100, 22,499-22,508, 1995.
38. **Hooff, E.E.**, M. Kleinrock, and C. Ruppel, Rifting of the Oceanic Crust at Endeavor Deep on the Juan Fernandez Microplate, *Marine Geophysical Research*, 17, 251-273, 1995.
39. **Hooff, E.E.**, and R.S. Detrick, The Role of Density in the Accumulation of Basaltic Melts at Mid-Ocean Ridges, *Geophysical Research Letters*, 20, 423-426, 1993.
40. Larson, R.L., R. C. Searle, M. C. Kleinrock, H. Schouten, R. T. Bird, D. F. Naar, R. I. Rusby, E. **E. Hooff**, H. Lasthiotakis, Roller-Bearing Tectonic Evolution of the Juan Fernandez Microplate, *Nature*, 356, 571-576, 1992.

Non-refereed publications:

1. **Hooff, E.**, We probed Santorini's volcano with sound to learn what's going on beneath the surface, *TheConversation.com* <https://theconversation.com/we-probed-santorinis-volcano-with-sound-to-learn-whats-going-on-beneath-the-surface-114696>, June 24, 2019.
As of 6/3/2020: 15,419 reads, 726 Facebook shares, 15 tweets, 2 newspaper engagements, and 29 re-publishers.
2. **Hooff, E.**, Women in Oceanography: A Decade Later, Autobiographical Sketches, *Oceanography*, 27, No. 4, 140, 2014.
3. **Hooff, E.E.E.**, Cascadia Initiative Expedition Team, Student Seagoing Experiences: The 2013 Cascadia Initiative Expedition Team's Apply to Sail Program, *GeoPRISMS Newsletter*, Fall 2013, 31, 23-26, 2013.
4. Humphries, S., **E. Hooff**, A.-L. Reysenbach, *Ridge2000 Mid-Atlantic Ridge 35°-37.5°N Workshop Report*, Portland, OR March 27-28, 2008,
5. Christie, D. M., B. Ildefonse, N. Abe, S. Arai, W. Bach, D. K. Blackman, R. Duncan, **E. Hooff**, S. E. Humphris, and D. J. Miller, Mission Moho: Formation and Evolution of Oceanic Lithosphere, *Eos Trans. AGU*, 87(48), doi:10.1029/2006EO480005, 2006.

6. Christie, D. M., B. Ildefonse, N. Abe, S. Arai, W. Bach, D. K. Blackman, R. Duncan, **E. Hoofft**, S. Humphris, and D. J. Miller, Mission Moho - Formation and Evolution of Oceanic Lithosphere. *Full workshop report, IODP JOI Interridge*, 244 p. www.iodp.org/ocean-lithosphere, 2006.
7. Ildefonse, B., D. M. Christie, N. Abe, S. Arai, W. Bach, D. K. Blackman, R. Duncan, **E. Hoofft**, S. Humphris, and D. J. Miller, Mission Moho Workshop: Drilling Through the Oceanic Crust to the Mantle, *Scientific Drilling*, 4, 11-18, doi:10.2204/iodp.sd.4.02.2007, 2006.
8. Ildefonse, B., D. M. Christie, N. Abe, S. Arai, W. Bach, D. K. Blackman, R. Duncan, **E. Hoofft**, S. Humphris, and D. J. Miller, Meeting report: mission Moho - Formation and evolution of oceanic lithosphere, *Interridge News*, 15, 54-56, 2006.
9. **Hoofft, E.**, Autobiographical Sketches of Women in Oceanography, *Oceanography*, 18, No. 1, 136, 2005.
10. Barriga, F., A. Colaço, J. Escartin, **E. Hoofft**, S. Humphris, N. Le Bris, C. Lee, N. Lourenço, and F. Wenzhofer, Long-term monitoring of the Mid-Atlantic Ridge – *Proceedings of the III MOMAR Workshop*, Lisbon, Portugal, 7-9 April 2005, 82 pp.
11. **Hoofft E.** et al., KRISE-2000: Constraining the Dynamics of Plume-Ridge Interaction to the North of Iceland. *InterRidge News*, 9, 37-40, 2000.

Research Expeditions

1. Co-Lead on Cascadia2020 Phase1: delayed till summer 2021
700 short-period seismometers in the Oregon Coast Ranges to record deep-penetrating offshore airguns and image the structure of the Cascadia Subduction Zone.
2. Chief Scientist on the *R.V. Marcus G. Langseth*: 11-12/2015
93 OBS, 69 land station, 14,320 airgun sources and multibeam bathymetry, gravity and magnetics study of the magma plumbing system of Santorini volcano, Greece.
3. Chief Scientist on the *R.V. Oceanus*: 8/2013
Year 2 Leg 5 deployment of 15 Cascadia Initiative ocean bottom seismometers, Juan de Fuca Plate, Northwest Pacific.
4. Chief Scientist on the *R.V. Oceanus*: 8/2012
Year 2 Leg 4 deployment of 25 Cascadia Initiative ocean bottom seismometers, Juan de Fuca Plate, Northwest Pacific.
5. Chief Scientist on the *R.V. Wecoma*: 11/2011
Year 1 Leg 3 deployment of 25 Cascadia Initiative ocean bottom seismometers, Juan de Fuca Plate, Northwest Pacific.
6. Chief Scientist on the *R.V. Marcus G Langseth*: 8-9/2009
Multi-scale active source seismic tomography of the Endeavour segment, Juan de Fuca ridge, to image the magmatic structure in mantle & crust and structure of the hydrothermal system.
7. Chief Scientist: Shallow magma plumbing at Newberry volcano, OR: 9/2008
Deployment and recovery of 81 PASSCAL short-period three component seismometers.
8. Lead of seismic group: Interdisciplinary studies of Endeavour hydrothermal venting on the Juan de Fuca Ridge using autonomous underwater vehicle *Jason* on *R.V. T.G. Thompson*: 9/2005
Sub-seafloor short-period & broadband seismometers.

9. Lead PI: Seismic study of the Kolbeinsey ridge north of Iceland to investigate the asymmetry in interaction of the Iceland hotspot with the spreading centers: 7/2000
Collaboration with Icelandic, Japanese, and Norwegian scientists.
10. Co-Lead: Seismic reconnaissance of the Galápagos archipelago to determine the size and structure of Galápagos mantle plume: 8-9/1999, 12/1999, 9/2000
Installation and servicing of broadband portable land stations. Collaboration between the Carnegie Institution, the University of Oregon, and the Instituto Geofísico, Quito, Ecuador.
11. Participant: Seismic refraction on the Mid-Atlantic Ridge, *Research Vessel (R.V.) Maurice Ewing*: 10-11/1996
Map crustal structure and thickness of 3 ridge segments.
12. Participant: *B.I.O. Hesperides*: 3/1996
Geophysical survey of the Galápagos spreading center aboard the Spanish research vessel: bathymetry, gravity and magnetics.
13. Participant: *R.V. Maurice Ewing*: 6-7/1991
GLORIA (sidescan sonar), Hydrosweep (swath bathymetry), gravity and magnetics cruise to the Juan Fernandez microplate.
14. Participant: *R.V. J.P. Tully*: 7/1989
NOBEL (ocean bottom explosives) and single channel seismic cruise to the Juan de Fuca ridge, on board the Canadian

Selected Current Grant Activity

NSF

Collaborative Research: An Open Access experiment to seismically image Galapagos plume-ridge interaction

NSF-OCE; 2020-2024; Role: PI (co-PI Doug Toomey). Amount \$539,509

Collaborative research: Cascadia2020: Investigating subduction zone segmentation with a 3D high-resolution Vp model

NSF-EAR; 2020-2022. Role: Hooft PI (OSU Lead Inst). Amount: \$310,020

Structure of a recharging crustal magma plumbing system at the Santorini arc volcano

NSF-OCE; 2020-2022. Role: Hooft PI (co-PIs Doug Toomey & Hollie Smith). Amount: \$292,974

Other

Message Effects on Diverse Socio-Economic Populations for Early Earthquake Warning Communication

USGS-Earthquake Hazards Program; 2020-2021. Role: co-PI (PI Hollie Smith – UO Media Center for Science and Technology). Amount: \$85,704

Computational approaches to mitigate volcanic eruption hazards: Enhancing detection of subsurface magma bodies

UO Renee James Seed Grant Initiative to Accelerate Scientific Research; 2019-2020. Role: co-PI (PI Josef Dufek). Amount: \$40,000.

Volcanism and tectonics in an island-arc rift environment (VolTecArc): Christiana-Santorini-Kolumbo marine volcanic field, Greece. IODP proposal 932; 5/2020. Role: co-PI. No support.

Mantle dynamics, paleo-oceanography, and climate evolution in the North Atlantic Ocean IODP proposal 932; 2/2020. Role: co-PI. No support.

Selected Completed Grant Activity

Next-generation 3D imaging of the on- and off-axis mantle and crustal magmatic systems at the Endeavour segment

NSF-OCE; 2016-2019. Role: co-PI (PI Doug Toomey), Amount: \$177,041.

Crustal magma plumbing of the Santorini volcanic system

NSF-OCE; 2015-2019 Role: PI (co-PI Doug Toomey)

Amount: \$509,552 (REU supplement \$3,948).

Support for the Cascadia Initiative Expedition Team, Years 1- 5,

NSF-OCE, Role: co-PI (PI Doug Toomey & co-PI Dean Livelybrooks)

Amount: 5 grants from 2011-2016 with subawards to 6 US institutions totaling \$1,862,602.

Collaborative Research: Linking stress changes and hydrothermal activity during a non-eruptive spreading event

NSF-OCE; 2009-2013. Role: PI (co-PI William Wilcock UW, Doug Toomey). Amount: \$177,576.

Imaging the Upper Crust at Newberry Volcano Using Large Offset Reflections

NSF-EAR; 2008-2011. Role: PI (co-PI Doug Toomey). Amount: \$151,738.

Skew of Mantle Upwelling Beneath the EPR: A Reconsideration of Data and Models

NSF-OCE 2007-2011. Role co-PI (PI Doug Toomey). Amount: \$265,252.

Collaborative Research: Testing Models of Magmatic and Hydrothermal Segmentation: A 3-D Seismic Tomography Experiment at the Endeavour Ridge

NSF-OCE 2006-2011. Role: co-PI (PI Doug Toomey). Amount: \$399,495

Acquisition of a Computational Facility, Geological Sciences, University of Oregon

NSF-EAR 2007-2010. Role co-PI. Amount: \$75,000.

Interactive Seafloor Studies of Episodic Deformation, Fluid Venting and Microbial Productivity at Plate Margins: Prototype Experiment for NEPTUNE, Phase 2

Keck Foundation; 2005. Role: co-PI (PI William Wilcock UW). Amount: \$66,860.

Collaborative Research: Seismic Studies of the Galápagos Hotspot

NSF OCE; 2002-2005. Role: co-PI (PI Doug Toomey). Amount: \$206,470.

Symposium on the Icelandic Plume and Crust

NSF OCE; 2001-2002. Role: PI. Amount: \$79,757.

Activity at the Galápagos Volcanoes: Monitoring Local Seismicity

National Geographic Society Research & Exploration Grant; 2000. Role: PI. Amount: \$25,000.

Plume-Ridge Interaction to the North of the Iceland Plume: Kolbeinsey Ridge Iceland Seismic Experiment

NSF OCE; 2000-2004, Role: PI. Amount: \$177,922.

Students Advised

Graduate Students: (19 total: 2 PhD, 6 MSc as primary advisor, 7 as committee member, 4 as institutional representative). Primary advisor to: Benjamin Heath (PhD 2019), Brennah McVey (MSc 2019), Joseph Byrnes (PhD 2017), Benjamin Heath (MSc 2014), Anne Wells/Teachout (2012), Matthew Beachly (MSc 2011), Ali Furrall (MSc 2010), Hemalinee Patel (MSc 2007).

Undergraduate Students: (6 total). Kaisa Autmun (current), Spencer Palanuk (2020), Sam Freeman (2019), Claire Getz (2015), Amber Tucker (senior research project 2015), Kelly Wood (2007).

Courses Taught

W20, F17	Intro to Seismology (ERTH468/568; 4 credits)
W19, S16, F12	Signal Processing (GEOL 410/510; 4 credits)
F18, S18, F16, W15	Graduate seminars: Ethics; New Grad Student Survival Skills (GEOL607; 1 credit)
W18	Staples Field Trip Seminar (ERTH407/507; 1 credit)
W17, F14	Earth Physics (GEOL/ERTH 315; 4-credits)
W16	Graduate seminar: Imaging Volcanic Systems (GEOL 607; 1 credit)
F13, F10, F11, F09	Earth's Interior Heat and Dynamics (GEOL 201; 4-credits)
W13, W12, W07-10	Earth Physics (GEOL 315; 2-credits)
F08, F07	MATLAB for Earth Sciences (GEOL 410/510; 4-credits)
F06	Dynamics of Ocean Basins and Margins (GEOL 410/510; 4-credits)
F04	Co-instructor, Research Apprenticeship Class, 15 credits, "Seismic Deformation and its Relation to Volcanic, Hydrothermal & Biologic Activity along the Juan de Fuca Ridge", Friday Harbor Lab, Univ. Washington, WA.

Professional Service and Awards

Co-convenor of Special Session S2.7 "Multidisciplinary approaches to caldera deformation studies" at the Cities on Volcanoes 11 meeting, Crete, Greece, 2020

Member, Oversight Committee, Ocean Bottom Seismic Instrument Center, NSF-OCE, 2019 – present

Contributor to Future of Marine Seismics Workshop & Report, NSF-OCE, 2019

Member of National Science Foundation Marine Seismic Panel, NSF-OCE, 2017

Convenor of Special Session (107 submissions) "Architecture of magmatic plumbing systems" at the Scientific Assembly of the International Association of Volcanology and Chemistry of the Earth's Interior, Portland, OR, and Judge for graduate student papers, 2017

Member of National Science Foundation Ocean Sciences proposal review panel, 2016

Member of Science and Technology Advisory Team for Newberry Geothermal Area FORGE project, DOE, 2014-2016

Convenor of special session "Understanding the Cascadia Subduction Zone: Contributions from the Cascadia Initiative and Multidisciplinary Studies", American Geophysical Union Fall Meeting, 2013

Member of the Cascadia Initiative Expedition Team who are implementing the oceanographic portion of an onshore/offshore experiment in the Pacific Northwest to study Cascadia megathrust earthquakes, volcanic arc structure and the formation, deformation and hydration of the Juan de Fuca and Gorda plates, 2011-2016

Ridge 2000 Monitoring the Mid-Atlantic Ridge Oversight Committee & InterRidge Monitoring the Mid-Atlantic Ridge Working Group, 2008

Member of NSF Ocean Sciences proposal review panel, 2006

Steering Committee, International Ocean Drilling Program/Joint Oceanographic Institutions /Ridge 2000/InterRidge Workshop: "Mission MOHO: Understanding the Formation and Evolution of the Oceanic Lithosphere", Portland, OR, 2006

Convenor, Monitoring the Mid-Atlantic Ridge, International Implementation Workshop, Lisbon, Portugal, 2005

Judge, Tectonophysics Section Outstanding Student Paper Award, American Geophysical Union, 1998, 2 times in 1999

Co-convenor of 2 special sessions "The super-fast spreading segment of the East Pacific Rise", American Geophysical Union, and "Tectonic evolution and thermal structure of mid-ocean ridges", European Geological Society, 1997

Outstanding Student Paper Award, Tectonophysics Section of American Geophysical Union, 1996

Canadian team member, 18th International Chemistry Olympiad, Leiden, Netherlands, 1986

Reviewer of tenure file for: University of New Mexico.

Reviewer of proposals for: National Science Foundation - Ocean Sciences, Earth Sciences, GeoPRISMS, and Polar Programs; Joint Oceanographic Institutions - Ocean Drilling Program; the European Research Council; the German Research Foundation; and the Icelandic Center for Research.

Reviewer of papers for: *Nature*, *Nature Communications*, *Geology*, *Journal of Geophysical Research*, *G³ (Geochemistry, Geophysics, Geosystems)*, *Geophysical Research Letters*, *Geophysical Journal International*, *Earth and Planetary Science Letters*, *Chemical Geology*, *Annals of Glaciology*, *Marine Geophysical Researches*, *Journal of Geodynamics*, *Proceedings of the Ocean Drilling Program*, *AGU Book: The Galapagos: A Natural Laboratory for the Earth Sciences*.

Professional Affiliations

American Geophysical Union, Tectonophysics and Volcanology Sections
International Association of Volcanology and Chemistry of the Earth's Interior
American Association for the Advancement of Science
Union of Concerned Scientists
Sigma Chi
Oregon Hazards Lab, University of Oregon. Faculty Member/Advisor, 2017-present

Invited Lectures

1. 7/2021 Keynote speaker for Modelling Collaboratory for Subduction Regional Coordination Network's Volcanic Systems Modeling Workshop "Seismic imaging of magmatic systems", Portland State University, OR.
2. 11/2017 MagellanPlus Workshop "Volcanic, tectonic and hydrothermal processes in an island-arc caldera environment (Santorini-Kolumbo marine volcanic system)", European Consortium for Ocean Research Drilling, Athens, Greece.
3. 9/2017 "PROTEUS – Santorini Seismic Experiment", Ocean Bottom Seismology Instrument Pool Symposium, Portland, Maine.
4. 4/2017 "Advances in seismic imaging of volcanic systems: Examples from arc volcanoes and the mid-ocean ridge", Oregon State University.
5. 11/2015 "Imaging the magma plumbing of volcanoes: Newberry and Santorini volcanoes", University of Athens, Greece.

6. 4/2014 “Imaging a shallow crustal magma body at Newberry volcano using P-wave tomography and waveform modeling”, Oregon State University, Corvallis
7. 3/2014 “Imaging a shallow crustal magma body at Newberry volcano using P-wave tomography and waveform modeling”, Cascades Volcano Observatory, Vancouver, WA
8. 12/2013 “Magma plumbing at Newberry volcano from P-wave tomography and waveform modeling”, Forest Service, Bend, OR
9. 10/2013 “Seismo-tectonics of the Juan de Fuca Ridge”, 2013 Ocean Bottom Seismology Workshop, Redondo Beach, CA
10. 4/2013 “Magma plumbing at Newberry volcano and at the northern Juan de Fuca ridge: Implications for the delivery and storage of melt”, Hatfield Marine Science Center, Newport, OR
11. 3/2008 Convenor & Lecturer, Ridge 2000 Inter-disciplinary Meeting, Mantle to Microbe: Integrated Studies at Oceanic Spreading Centers & Mid-Atlantic Ridge ~35-37.5°N Implementation Plan Workshop, Portland, OR.
12. 4/2006 “The interaction of the Iceland plume and the Mid-Atlantic Ridge”, University of Idaho, Moscow, ID.
13. 3/2004 Lecturer, Ridge Workshop on Mid-Atlantic Ridge Integrated Studies Site, Providence, RI.
14. 9/2003 Lecturer, InterRidge Workshop on Hotspot-Ridge Interactions, Brest, France.
15. 9/2001 Convenor and Lecturer, Symposium on the Icelandic Plume and Crust, Iceland.
16. 5/2000 Lecturer, Ridge Integrated Studies Planning Workshop, Newport, OR.

University or Oregon Service

Research Advisory Board member, University of Oregon, 2019 - present

Senior Faculty on CAS Mentoring Group for Women in the Sciences,
University of Oregon, 2019 - present

Faculty panel for pre-proposals the Johnson & Johnson Women in STEM
award, 2019

Invited speaker for Oregon Hazards Lab on “Tribal Connectivity
Opportunities”, Native American Advisory Council & UO President Schill,
UO Many Nations Longhouse, 2019

University of Oregon Alumni/Donor event in Washington DC, 2017

University of Oregon Alumni/Donor event in New York City, 2017

Met with OR Representative Bonamici and UO Board Chair & Volcanology
Cluster Donor Chuck Lillis to advocate for Volcanology funding legislation
Washington DC, 2017

Contributed to UO lobbying for a west coast Earthquake Early Warning
System with UO President Gottfredson, Congressman DeFazio, & Senator
Merkeley, Representative Nathan Nathanson, 2014

Institutional Representative on 6 PhD committees, University of Oregon

Departmental Service

- | | |
|---------|--|
| 2019/20 | Geophysics Undergrad Track Advisor
Comprehensive Exam Committee Member for Gabriel Ferragut
Mentor for Valerie Sahakian - UO Under-represented Minority Recruitment Plan |
| 2018/19 | Met with Rep. Nancy Nathanson Oregon State funding for ShakeAlert & AlertWildfire. |
| 2018/19 | Comprehensive Exam Committee Member for Joshua Wiejaczka; Alexis Klimasewski
Mentor for Valerie Sahakian - UO Under-represented Minority Recruitment Plan |

- Member of DoES IgDEAS group
- 2009-2019 Departmental Library Coordinator;
2015 & 2016 - budget cuts
2014-15 - paper journal reduction and new science library design in
2009 - refocused the journal collection and coordinated budget cuts of 1/3rd
- 2017/18 Comprehensive Exam Committee Member for Michelle Muth; Mike Hudak; Josh Crozier
Undergraduate Senior Thesis Committee Member for Geena Littel
Lead for the Staples Departmental Field trip to Santorini and Crete, March 2018
Member of Volcanology Cluster of Excellence Faculty Search Committee
Mentor for Leif Karlstrom, Associate Professor
- 2016/17 Member of Volcanology Cluster of Excellence Faculty Search Committee
- 2015/16 Comprehensive Exam Committee Member for Benjamin Heath; Dan O'Hara
- 3-6/2015 Departmental host for Meierjurgan Scholar, Prof. Costas Papazachos (Aristotle Univ. Thessaloniki, Greece)
- 2014/15 Member of Volcanology Faculty Search Committee
- 4/2014 Participated in development of Volcanology Cluster Hire proposal
- 2012/13 Chair of Committee for Department of Geological Sciences, College of Arts and Sciences Departmental 5-Year Academic Plan.
- 2012/13 Department Web Page Committee.
- 2011/12 Member of Faculty Search Committee.
- 2010 Coordinator for fall departmental seminar series; developed the themes and invited and hosted speakers (shared with David Schmidt).
- 2006/07 Ph.D. Comprehensive Exam Coordinator.

Media Coverage

- 10/2019 Video interview with Chris Larsen, UO for Volcanology Cluster and Newberry promotions: <https://around.uoregon.edu/volcanology>
- 8/2019 Article in Greek national newspaper about Santorini caldera formation: Kathimerini: <https://www.kathimerini.gr/1038809/gallery/epikairothta/ellada/h-a3onikh-toografia-toy-hfaisteioy-ths-santorinhs> by Lina Giannarou.
- 7/2019 Video interview with NVS productions (www.nvs.productions) for show on Cascade volcanoes.
- 3/2019 Article in two Greek national newspapers about Santorini caldera formation:
Efimerida: <https://www.iefimerida.gr/news/487151/ifaisteio-santorinis-epistimones-proeidopoioun-gia-endehomeini-nea-ekrxi>
Athens News Agency: <https://www.amna.gr/mobile/articleen/345911/Epistimones-fotografisan-to-magmatiko-thalamo-tou-ifaisteiou-sti-Santorini>
- 9/2017 Provided images for Oregon Quarterly article on Volcanology Cluster.
- 9/2017 Provided video of Santorini research expedition to Mallinson Sadler Productions for a National Geographic documentary series, 'Drain', on seafloor geology and archeology.
- 5/2017 Article in Greek national newspaper, Kathimerini, on the new Santorini seafloor maps: <http://www.ekathimerini.com/220804/article/ekathimerini/community/scientists-harvest-fresh-findings-from-roots-of-santorini-volcano> by Giorgos Lialios.

- 2016 Cascade Magazine article about participation of undergraduate student Claire Getz in the Santorini shipboard seismic experiment by Jim Murez:
<http://cascade.uoregon.edu/fall2016/features/sea-star/>
- 2016 UO Research Innovation & Graduate Education article by Jim Barlow:
<https://around.uoregon.edu/content/uo-led-expedition-probes-undersea-magma-system>
Copied into Science Daily:
<http://www.sciencedaily.com/releases/2016/01/160111161055.htm>
- 2015 Oregon Quarterly article by Rosemary Camozzi: <http://oregonquarterly.com/deep-research>
- 2014 Cascade Magazine article by Matt Cooper:
<http://cascade.uoregon.edu/winter2014/features/the-sleeping-giant/>
- 2013 UO Research Innovation & Graduate Education article by Jim Barlow:
<http://around.uoregon.edu/story/research-innovation-graduate-education/academics/what-lies-beneath-3d-view-shows-magma-under-n>
- 2013 Video offers peek at magma beneath Newberry by Susie Bodman:
<http://community.statesmanjournal.com/blogs/science/2013/01/23/video-offers-a-peek-at-magma-beneath-newberry>
- 2010 UO Cascade Magazine article by Marc Dadigan:
<http://cascade.uoregon.edu/fall2010/natural-sciences/is-newberry-likely-to-erupt/>

Education and Outreach Activities

- 6/2019 YouTube video of Santorini caldera magma plumbing system: 3D visualization of tomographic seismic velocity model from the PROTEUS experiment, <https://youtu.be/vJqmyD17mU>, made by Brennah McVey, MSc UO.
- 5/2019 Invited speaker “Under the Volcano: Mapping the magmatic pathways of volcanoes from Oregon to Greece”, UO Quack Chats pub talk, Eugene:
<https://around.uoregon.edu/content/quack-chats-explores-insides-worlds-great-volcanoes>
- 10/2016 PROTEUS – Santorini seagoing expedition, 3-minute public outreach documentary on YouTube, <https://youtu.be/sygEQzn0BP4>, made with Laura Stewart University of Oregon undergraduate student in Journalism.
- 5/2016 Santorini Seismic Experiment Website: <https://santorini.uoregon.edu/>. Describes the purpose of the seagoing expedition and hosted a Blog during the cruise.
- 1/2016 Invited speaker joint with Doug Toomey “The Cascadia Subduction Zone: Volcanoes, Earthquakes, and Early Warning”, UO Alumni Association, Portland Science Night.
- 8/2015 YouTube video: EarthScope Chronicles: *Meet a Geophysicist - Emilie Hooft*
<https://youtu.be/pTSTdBYZewE>
- 4/2015 Invited speaker “The magma chamber below Newberry caldera”, UO-High Desert Museum Natural History Pub talk.
- 3/2015 Instructor, Environmental Science, ENVS 199, UO Academic Extension Courses for High School Students Program.
- 3-9/2014 Coordinator of Cascadia Initiative Expedition Team Apply-to-Sail Program

- 5/2014 Newberry's Magma Chamber, 10-minute public outreach documentary on rotation in the theater at the Newberry Volcanic Monument Visitors Center, Bend, OR.
- 1/2014 Instructor, Earth Science, ENVS 199, UO Academic Extension Courses for High School Students Program.
- 11/2013 Newberry's Magma Chamber, 10-minute public outreach documentary on You Tube, <http://youtu.be/VbErYAfWKI>, made with Garon Hale (Interim Director of College of Arts and Sciences Information Technology) and Adam Paikowsky & Hayden Steinbock (Undergraduate students in the UO Digital Arts Program). ~1000 views as of Feb 2015.
- 3-9/2013 Coordinator of Cascadia Initiative Expedition Team Apply-to-Sail Program
- 3/14/13 Geology STEM talk at Science Open House Event for 140 high school science students.
- 2012/13 Member of UO STEM CORE Consortium (<http://stemcore.uoregon.edu>)
- 2010-2012 Several in-class presentations on research at sea at Edison Elementary School, Eugene.
- 3-9/2012 Coordinator of Cascadia Initiative Expedition Team Apply-to-Sail Program

Languages

Dutch, English, French, German, modern Greek, and Spanish