

Jessica M. Warren - Associate Professor, University of Delaware

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EDUCATION

- 2007 **Ph.D.** in Geochemistry and Geophysics, MIT/WHOI Joint Program
The Oceanic Upper Mantle: Rheological and Geochemical Constraints
- 2003 **M.A.** in Natural Sciences, University of Cambridge
- 2000 **M.Sci.** in Natural Sciences, University of Cambridge
- 1999 **B.A. First Class** in Natural Sciences, University of Cambridge

APPOINTMENTS

- 2018-present **Associate Professor**, Department of Earth Sciences, University of Delaware
- 2015-2018 **Assistant Professor**, Department of Geological Sciences, University of Delaware
- 2014-present **Research Associate**, National Museum of Natural History, Smithsonian Institution
- 2014-2016 **Visiting Investigator**, Dept. of Terrestrial Magnetism, Carnegie Institution for Science
- 2015 **Sabbatical Visitor**, Dept. of Earth Sciences, University of Oxford
- 2010-2015 **Assistant Professor**, Dept. of Geological Sciences, Stanford University
- 2008-2010 **Postdoctoral Fellow**, Dept. of Terrestrial Magnetism, Carnegie Institution for Science
- 2007 **Postdoctoral Investigator**, Geology & Geophysics, Woods Hole Oceanographic Inst.
- 2005-2006 **COE-21 Collaborative Researcher**, Okayama University at Misasa
- 2001-2007 **Research Assistant**, Dept. of Geology & Geophysics, Woods Hole Oceanographic Inst.

HONORS AND AWARDS

- 2013-2018 CAREER Award, National Science Foundation
- 2015 Stanford Presidential Research Grants for Junior Faculty
- 2013-2015 Frederick E. Terman Fellowship, Stanford University
- 2011 Stanford Presidential Research Grants for Junior Faculty
- 2008-2010 Carnegie Postdoctoral Fellow, Carnegie Institution of Washington
- 2002-2003 Stanley W. Watson Fellowship, MIT/WHOI Joint Program
- 2001-2002 Charles Davis Hollister Fellowship, MIT/WHOI Joint Program
- 1998-1999 Skerne Scholarship, University of Cambridge

PUBLICATIONS

*Publications as associate professor: (*invited; † Warren lab member; ‡ student collaborator)*

- Kohli, A.H., M. Wolfson-Schwehr, C. Prigent[†], and **J.M. Warren**, 2021. Oceanic transform fault seismicity and slip mode influenced by seawater infiltration, *Nature Geoscience*, 14, 606-611, doi:10.1038/s41561-021-00778-1.
- Birner, S.K., E. Cottrell, **J.M. Warren**, K.A. Kelley, and F.A. Davis, 2021. Melt addition to mid-ocean ridge peridotites increases spinel Cr# with no significant effect on recorded oxygen fugacity, *Earth and Planetary Science Letters*, 566, 116951, doi.org/10.1016/j.epsl.2021.116951.

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- Patterson, S.N.[†], K.J. Lynn[†], C. Prigent[†], and **J.M. Warren**, 2021. High temperature hydrothermal alteration and amphibole formation in Gakkel Ridge abyssal peridotites, *Lithos*, 392-393, 106107, doi:10.1016/j.lithos.2021.106107.
- Lynn, K.J.[†] and **J.M. Warren**, 2021. The potential for aqueous fluid-rock and silicate melt-rock interactions to re-equilibrate hydrogen in peridotite nominally anhydrous minerals, *American Mineralogist*, 106, 701-714, doi:10.2138/am-2021-7435.
Special Collection: Volatile Elements in Differentiated Planetary Interiors
- Hansen, L.N., M. Faccenda, and **J.M. Warren**, 2021. A review of mechanisms generating seismic anisotropy in the upper mantle, *Physics of the Earth and Planetary Interiors*, 313, 106662, doi:10.1016/j.pepi.2021.106662.
Special Issue: Physical Properties and Observations of the Lithosphere-Asthenosphere System
- Wallis, D., L.N. Hansen, K.M. Kumamoto, C.A. Thom, O. Plümper, M. Ohl, W.B. Durham, D.L. Goldsby, D.E.J. Armstrong, C.D. Meyers, R. Goddard, **J.M. Warren**, T. Breithaupt, M.R. Drury, A.J. Wilkinson, 2020. Dislocation interactions during low-temperature plasticity of olivine strengthen the lithospheric mantle, *Earth and Planet. Sci. Lett.*, 543, 116349, doi:10.1016/j.epsl.2020.116349.
- Prigent, C.[†], **J.M. Warren**, A.H. Kohli, and C. Teyssier, 2020. Fracture-mediated deep seawater flow and mantle hydration on oceanic transform faults, *Earth and Planetary Science Letters*, 532, 115988, doi:10.1016/j.epsl.2019.115988.
- Kohli, A.H.[‡] and **J.M. Warren**, 2020. Evidence for a deep hydrologic cycle on oceanic transform faults, *Journal of Geophysical Research*, 125, e2019JB017751, doi:10.1029/2019JB017751.
- Warren, J.M.**, M.D. Behn, W. Fan, T. Morrow, C. Prigent[†], D.M. Schwartz, J. Andrys[†], M. Bahruth[†], J. Gong, K.-Y. Lin[†], A.T. Gardner, D. Kot, M. Rapa, B. Kelly, and P. A'Hearn, 2019. AT42-20 Cruise Report for the 2019-2021 Gofar Transform Fault Earthquake Prediction Experiment, Leg 1: OBS Deployment and Rock Dredging, *Technical Report*, doi:10.1575/1912/25464.
- Kumamoto, K.M.[†], **J.M. Warren**, and L.N. Hansen, 2019b. Evolution of the Josephine Peridotite shear zones: 2. Influences on olivine CPO evolution, *Journal of Geophysical Research*, 124, 12,763-12,781, doi:10.1029/2019JB017968.
- Kumamoto, K.M.[†], **J.M. Warren**, and E.H. Hauri, 2019a. Evolution of the Josephine Peridotite shear zones: 1. Compositional variation and shear initiation, *Geochemistry, Geophysics, Geosystems*, 20, 5765-5785, doi:10.1029/2019GC008399.
- Nevitt, J.M., **J.M. Warren**, K.M. Kumamoto[†], and D.D. Pollard, 2019. Using geologic structures to constrain constitutive laws not accessible in the laboratory, *Journal of Structural Geology*, 125, 55-63, doi:10.1016/j.jsg.2018.06.006.
Special Issue: Back to the Future: 40 years of Structural Geology and beyond
- Boneh, Y., E. Schottenfels, K. Kwong, I. van Zelst, X. Tong, M. Eimer, M.S. Miller, L. Moresi, **J.M. Warren**, D.A. Wiens, M. Billen, J. Naliboff, and Z. Zhan, 2019. Intermediate-depth earthquakes controlled by incoming plate hydration along bending-related faults, *Geophysical Research Letters*, 46, 3688-3697, doi:10.1029/2018GL081585.
- D'Errico, M.E.[†], M.A. Coble, and **J.M. Warren**, 2019. In situ measurements of lead and other trace elements in abyssal peridotite sulfides, *American Mineralogist*, 104, 190-206, doi:10.2138/am-2019-6516.

Special Collection: Planetary Processes as Revealed by Sulfides and Chalcophile Elements

Birner, S.K.[†], E. Cottrell, **J.M. Warren**, K.A. Kelley, and F.A. Davis, 2018. Peridotites and basalts reveal broad congruence between two independent records of mantle f_{O_2} despite local redox heterogeneity, *Earth and Planetary Science Letters*, 494, 172-189, doi:10.1016/j.epsl.2018.04.035.

Birner, S.K.[†], **J.M. Warren**, E. Cottrell, F.A. Davis, K.A. Kelley, and T.J. Falloon, 2017. Forearc peridotites from Tonga record heterogeneous oxidation of the mantle following subduction initiation, *Journal of Petrology*, 58, 1755-1780, doi:10.1093/petrology/egx072.

Kumamoto, K.M.[†], C.A. Thom[‡], D. Wallis, L.N. Hansen, D.E.J. Armstrong, **J.M. Warren**, D. Goldsby, and A.J. Wilkinson, 2017b. Size effects resolve discrepancies in 40 years of work on low-temperature plasticity in olivine, *Science Advances*, 3, e1701338, doi:10.1126/sciadv.1701338.

Publications as assistant professor:

Nevitt, J.M.[†], **J.M. Warren**, and D.D. Pollard, 2017b. Testing constitutive equations for brittle-ductile deformation associated with faulting in granitic rock, *Journal of Geophysical Research*, 122, 6269-6293, doi:10.1002/2017JB014000.

Nevitt, J.M.[†], **J.M. Warren**, S. Kidder, and D.D. Pollard, 2017a. Comparison of thermal modeling, microstructural analysis, and Ti-in-quartz thermobarometry to constrain the thermal history of a cooling pluton during deformation in the Mount Abbot Quadrangle, CA, *Geochemistry, Geophysics, Geosystems*, 18, 1270-1297, doi:10.1002/2016GC006655.

Day, J.M.D., R.J. Walker, and **J.M. Warren**, 2017. ^{186}Os - ^{187}Os and highly siderophile element abundance systematics of the mantle revealed by abyssal peridotites and Os-rich alloys, *Geochimica et Cosmochimica Acta*, 200, 232-254, doi:10.1016/j.gca.2016.12.013.

Kumamoto, K.M.[†], **J.M. Warren**, and E.H. Hauri, 2017a. New SIMS reference materials for measuring water in upper mantle minerals, *American Mineralogist*, 102, 537-547, doi:10.2138/am-2017-5863.

Davis, F.A., E. Cottrell, S.K. Birner[†], **J.M. Warren**, and O.G. Lopez, 2017. Revisiting the electron microprobe method of spinel-olivine-orthopyroxene oxybarometry applied to spinel peridotites, *American Mineralogist*, 102, 421-435, doi:10.2138/am-2017-5823.

Hansen, L.N., C.P. Conrad, Y. Boneh, P.A. Skemer, **J.M. Warren**, and D.L. Kohlstedt, 2016c. Viscous anisotropy of textured olivine aggregates, Part 2: Micromechanical model, *Journal of Geophysical Research*, 121, 7137-7160, doi:10.1002/2016JB013240.

Hansen, L.N., C. Qi, and **J.M. Warren**, 2016b. Olivine torsion experiments constrain the nature of the oceanic lithosphere-asthenosphere boundary, *Proceedings of the National Academy of Sciences*, 113, 10503-10506, doi:10.1073/pnas.1608269113.

Birner, S.K.[†], **J.M. Warren**, E. Cottrell, and F.A. Davis, 2016. Hydrothermal alteration of seafloor peridotites does not influence oxygen fugacity recorded by spinel oxybarometry, *Geology*, 44, 535-538, doi:10.1130/G38113.1.

Hansen, L.N., **J.M. Warren**, M.E. Zimmerman, and D.L. Kohlstedt, 2016a. Viscous anisotropy of textured olivine aggregates, Part 1: Measurement of the magnitude and evolution of anisotropy, *Earth and Planetary Science Letters*, 445, 92-103, doi:10.1016/j.epsl.2016.04.008.

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- *Warren, J.M.**, 2016. Global variations in abyssal peridotite compositions, *Lithos*, 248-251, 193-219, doi:10.1016/j.lithos.2015.12.023. *Invited review paper*.
- D'Errico, M.E.[†], **J.M. Warren**, and M. Godard, 2016. Evidence for chemically heterogeneous Arctic mantle beneath the Gakkel Ridge, *Geochimica et Cosmochimica Acta*, 174, 291-312, doi:10.1016/j.gca.2015.11.017.
- Harvey, J., **J.M. Warren**, and S.B. Shirey, 2016. Mantle sulfides and their role in Re-Os-Pb isotope geochronology, *Reviews in Mineralogy and Geochemistry*, 81, 579-649, doi:10.2138/rmg.2016.81.10.
- Hansen, L.N.[†] and **J.M. Warren**, 2015. Quantifying the effect of pyroxene on deformation of peridotite in a natural shear zone, *Journal of Geophysical Research*, 120, 2717-2738, doi:10.1002/2014JB011584.
- Sleep, N.H. and **J.M. Warren**, 2014. Effect of latent heat of freezing on crustal generation at ultraslow spreading rates, *Geochemistry, Geophysics, Geosystems*, 15, 3161-3174, doi:10.1002/2014GC005423.
- Garber, J.M.[‡], S.M. Roeske, **J.M. Warren**, S.R. Mulcahy, W.C. McClelland, L.J. Austin, P.R. Renne, and G.I. Vujovich, 2014. Crustal shortening, exhumation, and strain localization in a collisional orogen: The Bajo Pequeño Shear Zone, Sierra de Pie de Palo, Argentina, *Tectonics*, 33, 1277-1303, doi:10.1002/2013TC003477.
- Warren, J.M.** and E.H. Hauri, 2014. Pyroxenes as tracers of mantle water variations, *Journal of Geophysical Research*, 119, 1851-1881, doi:10.1002/2013JB010328.
- Nevitt, J.M.[†], D.D. Pollard, and **J.M. Warren**, 2014. Evaluation of transtension and transpression within contractional fault steps: Comparing kinematic and mechanical models to field data, *Journal of Structural Geology*, 60, 55-69, doi:10.1016/j.jsg.2013.12.011.
- Blusztajn, J., N. Shimizu, **J.M. Warren**, and H.J.B. Dick, 2014. In-situ Pb isotopic analysis of sulfides in abyssal peridotites from ultraslow spreading ridges: New insights into heterogeneity and evolution of the oceanic upper mantle, *Geology*, 42, 159-162, doi:10.1130/G34966.1.
- Skemer, P.A., **J.M. Warren**, L.N. Hansen[†], G. Hirth, and P.B. Kelemen, 2013. The influence of water and LPO on the initiation and evolution of mantle shear zones, *Earth and Planetary Science Letters*, 375, 222-233, doi:10.1016/j.epsl.2013.05.034.
- Craddock, P.R., **J.M. Warren**, and N. Dauphas, 2013. The chondritic Fe isotopic composition of the Earth, *Earth and Planetary Science Letters*, 365, 63-76, doi:10.1016/j.epsl.2013.01.011. Featured in *Nature News & Views: Halliday, A.N.*, 2013. Small differences in sameness, *Nature*, 497, 43-45.
- Warren, J.M.** and S.B. Shirey, 2012. Pb and Os isotopic constraints on the oceanic mantle from single abyssal peridotite sulfides, *Earth and Planetary Science Letters*, 359-360, 279-293, doi:10.1016/j.epsl.2012.09.055.
- Recanati A.[‡], M.D. Kurz, **J.M. Warren**, and J. Curtice, 2012. Helium distribution in a mantle shear zone from the Josephine Peridotite, *Earth and Planetary Science Letters*, 359-360, 161-172, doi:10.1016/j.epsl.2012.09.046.
- Skemer, P.A., **J.M. Warren**, and G. Hirth, 2012. The influence of deformation history on the interpretation of seismic anisotropy, *Geochemistry, Geophysics, Geosystems*, 13, Q03006, doi:10.1029/2011GC003988.

Suyehiro, K., C. Bertka, D.K. Blackman, B. Ildefonse, P.B. Kelemen, A.J. Mangum, G. Myers, J. Phipps-Morgan, M. Schrenk, Y. Tatsumi, and **J.M. Warren**, 2011. Executive Summary: “Mantle Frontier” Workshop, *Scientific Drilling*, 11, 51-55, doi:10.2204/iodp.sd.11.07.2011.

Publications prior to assistant professorship:

Warren, J.M. and N. Shimizu, 2010. Cryptic variations in abyssal peridotite composition: Evidence for recent melt-rock reaction at the ridge, *Journal of Petrology*, 51(1-2), 395-423, doi:10.1093/petrology/egp096.

Dick, H.J.B., C.J. Lissenberg, and **J.M. Warren**, 2010. Mantle melting, melt transport, and delivery beneath a slow-spreading ridge: The paleo-MAR from 23°15'N to 23°45'N, *Journal of Petrology*, 51(1-2), 425-467, doi:10.1093/petrology/egp088.

Skemer, P.A., **J.M. Warren**, P.B. Kelemen, and G. Hirth, 2010. Microstructural and rheological evolution of a mantle shear zone, *Journal of Petrology*, 51(1-2), 55-80, doi:10.1093/petrology/egp057.

Warren, J.M., N. Shimizu, C. Sakaguchi, H.J.B. Dick, and E. Nakamura, 2009. An assessment of mantle heterogeneity based on abyssal peridotite isotopic compositions, *Journal of Geophysical Research*, 114, B12203, doi:10.1029/2008JB006186.

Kurz, M.D., **J.M. Warren**, and J. Curtice, 2009. Mantle deformation and noble gases: helium and neon in oceanic mylonites, *Chemical Geology* 266, 10-18, doi:10.1016/j.chemgeo.2008.12.018.

Warren, J.M., G. Hirth, and P.B. Kelemen, 2008. Evolution of olivine lattice preferred orientation during simple shear in the mantle, *Earth and Planetary Science Letters*, 272, 501-512, doi:10.1016/j.epsl.2008.03.063.

Courtier, A.M., M.G. Jackson, J.F. Lawrence, Z. Wang, C.-T.A. Lee, R. Halama, **J.M. Warren**, R. Workman, W. Xu, M.M. Hirschmann, A.M. Larson, S.R. Hart, C. Lithgow-Bertelloni, L. Stixrude, W.-P. Chen, 2007. Correlation of seismic and petrologic thermometers suggests deep thermal anomalies beneath hotspots, *Earth and Planetary Science Letters* 264, 308-316, doi:10.1016/j.epsl.2007.10.003.

Dantas, C., G. Ceuleneer, M. Gregoire, M. Python, R. Freydier, **J.M. Warren**, and H.J.B. Dick, 2007. Pyroxenites from the Southwest Indian Ridge, 9-16°E: Cumulates from incremental melt fractions produced at the top of a cold melting regime, *Journal of Petrology*, 48(4), 647-660, doi:10.1093/petrology/egl076.

Warren, J.M. and G. Hirth, 2006. Grain size sensitive deformation mechanisms in naturally deformed peridotites, *Earth and Planetary Science Letters* 248, 423-435, doi:10.1016/j.epsl.2006.06.006.

GRANTS

Grants as associate professor:

2021-2023 NSF Petrology & Geochemistry, Geophysics, EAR-2113408: *Calibrating olivine crystallographic preferred orientation as a mantle water detector*; PI: J.M. Warren; \$317,667.

2021-2023 FONDECYT Chile: *Length-scales of chemical, isotopic, and structural heterogeneity in the mantle section of the 6 Ma Taitao ophiolite*; PI: M. Schilling (UACH). Warren is a project collaborator.

2020-2022 NSF Marine Geology and Geophysics, OCE-1832868: *INTERN supplement for “Capturing 4D Variations in Stress, Slip, and Fault-Zone Material Properties”*; PI: J.M. Warren; \$51,431.

2020-2023 NSF GeoPRISMS: *Cooperative Institute for Dynamic Earth Research: Fluid and Magma Transport at Plate Boundaries*, PIs: B. Buffett, B. Romanowicz, M. Manga (UC Berkeley). Warren is a member of the workshop organizing committee and contributed to proposal preparation.

2020-2023 NSF Petrology and Geochemistry, EAR-1939964: *Evaluating the causes of protracted explosive eruptions at Kilauea Volcano, Hawaii*; PIs: K.J. Lynn and J.M. Warren; \$255,595.

2019 NSF: *Research Coordination Network: In-Situ Rock Deformation (ISRDR)*; PI: W. Zhu (University of Maryland). Warren is a member of the steering committee and contributed to proposal preparation.

2018-2022 NSF Marine Geology and Geophysics, OCE-1832868: *Collaborative Research: Capturing 4D Variations in Stress, Slip, and Fault-Zone Material Properties: The 2019-2021 Gofar Transform Fault Earthquake Prediction Experiment*; PI: J.M. Warren; \$233,808; collaboration with M. Boettcher (University of New Hampshire), E. Roland (Western Washington University), and J.J. McGuire, M.D. Behn, J.A. Collins, W. Fan, C. German (Woods Hole Oceanographic Institution). Multi-institution project with three research cruises and 51 ocean bottom seismometers deployed for total cost of \$10M.

2018-2019 US Science Support Program: *Supplementary Workshop Participation for the New Caledonia Peridotite Amphibious Drilling Workshop*; PI: J.M. Warren, co-PIs: P.B. Kelemen, A. Farough, E.C. Ferré, F. Klein, R. Price, M.O. Schrenk, J.W. Shervais; \$12,000 for participant travel expenses.

Grants as assistant professor:

2015-2018 International Continental Scientific Drilling Program: *Oman Drilling Project*, PI: P.B. Kelemen (Columbia Univ.); co-PIs: J.M. Warren and 36 others; funding for drilling-related operations only.

2015 Stanford Nano Shared Facilities Seed Grant: *NanoSIMS technique development of volatile analyses in nominally anhydrous minerals*; PI: J.M. Warren; \$15,120.

2014-2018 NSF Marine Geology and Geophysics, OCE-1620276: *Collaborative Research: Upper mantle oxygen fugacity from source to surface*; PI: J.M. Warren; \$189,068; collaboration with E. Cottrell and F.A. Davis (Smithsonian Institution) and K.A. Kelley (University of Rhode Island); \$336,848 total.

2014-2018 NSF Tectonics, EAR-1619880: *Collaborative Research: Deformation-induced hydration of peridotite mylonites in nature and experiments*; PI: J.M. Warren; \$243,709; collaboration with C. Teyssier and M. Zimmerman (University of Minnesota); \$385,414 total.

2013-2020 NSF Petrology & Geochemistry, Tectonics, and Geophysics; EAR-1255620: *CAREER: Investigating the relationship between mantle shear localization, melt flow and water content*; PI: J.M. Warren; \$550,069.

2011-2012 NSF Major Research Instrumentation, EAR-1125782: *MRI: Acquisition of an electron microprobe for research in Earth sciences, materials science, and applied physics*; PI: J. Stebbins, co-PIs: M. Grove, I. Fisher, J.M. Warren, R. Sinclair; \$761,133.

2011-2012 France-Stanford Center Seed Fund: *France-Stanford Collaboration in mantle geochemistry and petrology*; PI: J.M. Warren, co-PIs: B. Ildefonse, M. Godard (Université de Montpellier); \$12,100.

Grant prior to assistant professorship:

2010-2012 NSF Petrology and Geochemistry, EAR-0948609: *Noble gas behavior during upper mantle deformation*; PI: M.D. Kurz (Woods Hole Oceanographic Institution); \$370,541 total, with subcontract for \$61,402 to J.M. Warren.

PRESENTATIONS

Invited seminars (as associate professor):

2021, Cottrell Reading Group, Smithsonian Institution:

Abysal peridotite constraints on lead in the Earth's mantle

2021, Seismo Lab Seminar, California Institute of Technology:

The influence of seawater infiltration on oceanic transform fault seismicity and slip mode

2021, Geological Society of Washington:

Global oceanic transform faults: the link between fluid flow and seismic behavior

2020 Department of Earth, Environmental and Planetary Sciences Colloquia, Brown University:

The rheology of oceanic transform faults: from mylonites to breccias

2019 EBSD Workshop, National Museum of Natural History, DC:

Using EBSD to explore fault zone deformation

2019 Workshop on Mantle Water, Lamont Doherty Earth Observatory:

Current analytical challenges for measuring water in NAMs

2019 Geology Department Colloquium, University of Maryland:

Using fault-zone geology to understand oceanic transform fault seismicity

2019 Geodynamics Seminar, Lamont Doherty Earth Observatory:

Using fault-zone geology to understand oceanic transform fault earthquakes

2018 Earth and Atmospheric Sciences Seminar Series, Cornell University:

Using fault-zone geology to understand oceanic transform fault seismicity

2018 Solid Earth Brown Bag, Princeton University, NJ:

Using the rock record to understand oceanic transform fault seismicity

Invited conference presentations (as associate professor):

Keynote, 2020 Tectonics Community Science Workshop, Virtual Event:

Constraints from the rock record on shear localization at oceanic transform faults

Invited Talk, 2018 American Geophysical Union Fall Meeting, Washington, DC:

Observations of a complex interplay between melt, water, grain size, and viscous anisotropy during shear localization in the lithospheric mantle.

Keynote, 2018 Goldschmidt Conference, Boston, MA:

Source versus process: Peridotite constraints on magma genesis.

Invited conference presentations (as assistant professor):

Invited Talk, 2017 Goldschmidt Conference, Paris, France:

Constraints on mantle Pb, Se, and Te behavior from in situ analyses of peridotite sulfides.

Lecture, 2017 Summer Program, Cooperative Institute for Dynamic Earth Research, Berkeley, CA:

Relating seismic anisotropy to natural mantle samples

Keynote, 2017 Deformation Mechanisms, Rheology and Tectonics Conference, Inverness, UK:

The role of fluids in the brittle-ductile transition at oceanic transform faults.

Keynote, 2016 Goldschmidt Conference, Yokohama, Japan:

Reconciling the compositions of ridge basalts and peridotites.

Invited Talk, 2016 CIDER Community Workshop, Point Reyes, CA:

Using olivine rheology to constrain plate boundaries.

Invited Talk, 2014 Gordon Research Conference on Rock Deformation, Andover, NH:

Initiation and Evolution of Ductile Mantle Shear Zones.

Keynote, 2013 Goldschmidt Conference, Florence, Italy:

Global Abyssal Peridotite Constraints on the Upper Mantle.

Invited Talk, 2011 Goldschmidt Conference, Prague, Czech Republic:

Mantle heterogeneity constraints from abyssal peridotite sulfide Pb and Os isotopic compositions.

Invited Talk, 2011 EarthScope Institute on the Lithosphere-Asthenosphere Boundary, Portland, OR:

Global abyssal peridotite constraints on oceanic LAB formation.

LAND AND SEA FIELD WORK

- 2019 R/V Atlantis: Chief scientist for *The 2019-2021 Gofar Transform Fault Earthquake Prediction Experiment Leg 1: OBS Deployment and Rock Dredging*.
- 2018 Josephine Peridotite and Trinity Ophiolite: Structural and geochemical sampling.
- 2015 Josephine Peridotite, Oregon: Sampling of shear zones A and B.
- 2014 Trinity Ophiolite, California: TLS survey of Kangaroo Lake section.
- 2013 Josephine Peridotite, Oregon: Sampling of Fresno Bench shear zones.
- 2012 Trinity Ophiolite and Josephine Peridotite: Peridotite structural and geochemical sampling.
- 2011 Oman Ophiolite: Sampling of deformed peridotites for noble gas project.
- 2010 Josephine Peridotite, Oregon: Sampling of deformed peridotites for mantle noble gas project.
- 2004 R/V Knorr, with ROV Jason-2 and AUV ABE: *Magnetic and Structural Studies of a Lower Crustal Exposure of Ocean Lithosphere: Kane Megamullion, Mid-Atlantic Ridge 23° 30'N*.
- 2003 Josephine Peridotite, Oregon, and Trinity Ophiolite, California: Peridotite sampling.
- 2003 R/V Melville: *Investigation of the Oblique and Orthogonal Supersegments of the SWIR*.
- 2001 R/V Yokosuka, with DSV Shinkai-6500: *Investigation of Atlantis Bank and the SW Indian Ridge from 56° E to 58° E*.
- 1999 Ardnamurchan, Scotland: Sampling of a contact metamorphic aureole.
- 1998 Apache National Forest, Arizona: Geologic field mapping.

TEACHING

University of Delaware:

- GEOL302 *Igneous and Metamorphic Petrology* (UG): Spring 2017, 2019, 2020, 2021
- GEOL405 *Introduction to Research* (UG): Fall 2018
- GEOL467/667 *Marine Geology and Plate Tectonics*, w/ McGeary (UG/G): Fall 2020
- GEOL601 *Geological Sciences at Delaware* (G): Fall 2017, 2018
- GEOL666/866 *Special Problem: Ultramafics in the Field* (G): Fall 2018
- GEOL802 *Marine Geology and Geophysics* (G): Fall 2019
- GEOL866 *Special Problem: Geophysical Field Methods* (G): Fall 2019
- GEOL866 *Special Problem: Ocean Island Volcanism* (G): Spring 2021
- UNIV401/402 *Senior Thesis* (UG): AY2019-2020

Stanford University:

- GES 104 *Introduction to Petrology* (UG): 2011, 2012, 2013, 2015
- GES 190 *Advanced Field Methods: Ultramafics in the Field* (UG/G): 2012, 2014
- GES 209 *Microstructures*, w/ Miller (UG/G): 2011.
- GES 263 *Introduction to Isotope Geochemistry*, Guest lecturer (UG/G): 2011, 2014
- GES 290 *Department Seminar in Geological and Environmental Sciences* (G): 2012, 2013, 2015
- GES 315 *Literature of Structural Geology*, w/ Pollard (G): 2012, 2013, 2014, 2015
- GES 340 *Seminar on the Earth's Interior*, w/ Mao (G): 2011, 2013
- GES 382 *Mantle Geochemistry* (G): 2012

ADVISING

Graduate Students:

- Abigail Nalesnik, Ph.D. candidate, 2020-present, University of Delaware
- Melinda Bahruth, Ph.D. candidate, 2018-present, University of Delaware
- Kuan-Yu Lin, Ph.D. candidate, 2018-present, University of Delaware
- Suzanne Birner, Ph.D. 2018, Stanford, Thesis: *Variations in the Oxygen Fugacity of the Upper Mantle*
- Kathryn Kumamoto, Ph.D. 2018, Stanford, Thesis: *Exploring the Rheological Properties of the Upper Mantle: From the Field to the Laboratory*
- Megan D'Errico, Ph.D. 2016, Stanford, Thesis: *Heterogeneity and Depletion of the Mantle Assessed From Abyssal Peridotite Geochemistry*

Nikolaus Deems, M.S. 2016, Stanford, Thesis: *Deformation history and depth to the brittle-ductile transition for peridotite mylonites from St. Paul Transform Fault, Mid-Atlantic Ridge*
 Johanna Nevitt, Ph.D. 2015, Stanford, co-advised with D. Pollard, Thesis: *Fault-related deformation within the brittle-ductile transition*

Postdocs:

Kendra Lynn, 2017-2020, now Research Geologist at U.S. Geological Survey
 Cécile Prigent, 2017-2020, now Assistant Professor at Institut de Physique du Globe de Paris
 Lars Hansen, 2012-2013, now Associate Professor at University of Minnesota

Undergraduate Research Advisor:

Janelle Hayward, 2021-present
 Natalie Zimmermann, 2019-2020, UD Summer Fellow, Senior Thesis: *Investigation of melt addition in mantle peridotites from the Gakkel Ridge*
 Raphael Affinito, 2018-2020, UD Summer & Winter Fellow, Senior Thesis: *The influence of water on olivine lattice preferred orientation based on deformation in the Josephine Peridotite*
 Sierra Patterson, 2018, UD Summer Fellow
 EKela Autry, 2015, Stanford Summer Fellow
 Oscar Lopez, 2015, co-advisor for Smithsonian Institution REU

Ph.D. Thesis Committee (current): Emmanuel Codillo (MIT/WHOI Joint Program, 2022 expected).

Ph.D. External Examiner (current): Sophie Cox (Cardiff University, 2021 expected).

Ph.D. Thesis Committee: Ningli Zhao (Brown University, 2021).

Ph.D. Thesis Committees (Stanford): Sarah Barrett (2015), Pablo García Del Real (2016), Arjun Kohli (2015; chair), Yingxia Shi (2016), Mary Reagan (2018).

Ph.D. Qualifying Exam Committees (Stanford): Sarah Barrett (2012), Pablo García Del Real (2011), Ryan McCarty (2013), Mary Reagan (2014), Yingxia Shi (2012), Meredith Townsend (2013).

Faculty Resource Advisor: Meredith Townsend, DARE Program 2014-2016 (PhD, Stanford, 2017).

M.S. Committees: Abe Torchinsky (Stanford, 2012); David Sheu (Stanford, 2012); Kate Kaminski (U. Idaho, 2016).

Undergraduate Major Advisor: E. Smith (BS, Stanford, 2013).

OUTREACH

2018 Judge, Outstanding Student Presentation Award, AGU Fall Meeting
 2018 Presentation on preparing CVs and Resumes, UD Graduate Student Brown Bag
 2018 *Ocean Rocks!* exhibit, Delaware Coast Day
 2018 *Ocean Rocks!* outreach event, Smithsonian National Museum of Natural History
 2018 Terrestrial Laser Scanning Field Module for Geol306
 2018 Guest professor, Geoscience Theater 3000
 2017 Judge, Outstanding Student Presentation Award, AGU Fall Meeting
 2016 Judge, Outstanding Student Presentation Award, AGU Fall Meeting
 2014 Judge, Outstanding Student Presentation Award, AGU Fall Meeting
 2014 Class blog for Stanford GES190 Field Class *Ultramafics in the Field*
 2014 Panelist, Advisor/advisee relationships for new graduate students (Stanford)
 2014 Guest lecturer, Current Research in Earth Sciences (Stanford EarthSci 1)
 2012 Class blog for Stanford GES190 Field Class *Research in the Field*
 2012 Panelist, Recruitment Retreat, Stanford Diversity Outreach for Doctoral Education
 2011 Panelist, *What does it mean to be a scientist?*, Geoscape Workshop for K-12 teachers
 2010 Guest lecturer, Current Research in Earth Sciences (Stanford EarthSci 1)

UNIVERSITY SERVICE

Service at University of Delaware:

2021-present Search committee for a department chair and tenure-track faculty member
 2020-present Graduate College Council, alternate representative for CEOE
 2019-present Graduate Admissions Committee
 2021 Search committee for a department business administrator
 2020 Committee for creating a Department of Earth Sciences code of conduct
 2017-2019 Earth Sciences Graduate Program Committee
 2018-2019 Search committee for a tenure-track faculty member in Geophysics [Chair]
 2018-2019 Evaluation committee for Department of Geological Sciences Chair
 2016-2019 Upgrades to petrology teaching infrastructure
 2018 Search committee for CEOE Communications Specialist
 2018 Postdoctoral search committee for Wallace Group
 2017 Geological Sciences Strategic Planning Committee [Chair]

Service at Stanford University:

2014-2015 SEEES Field Coordinator Search Committee
 2013-2015 Electron Microprobe Steering Committee
 2011-2015 Department Seminar Coordinator
 2010-2015 Undergraduate Field Program Committee [Chair 2014-2015]
 2011-2012 Geochronology Steering Committee
 2010-2012 ICP-MS Executive Board

PROFESSIONAL SERVICE

Committees:

2021-present **Member**, SZ4D Site Selection Committee for Exhumed Fault Analogs
 2020-present **Member**, Committee on Solid Earth Geophysics, National Academy of Sciences
 2019-present **Steering Committee**, In-Situ Rock Deformation Research Coordination Network
 2017-present **Editorial Board**, Lithos
 2017-2020 **Steering & Oversight Committee**, GeoPRISMS
 2015-2019 **Grant Committee**, MSA Grant for Student Research in Mineralogy & Petrology
 2013-2015 **Education & Outreach Committee**, DEFORM Consortium
 2011-2016 **Steering Committee**, Physical Properties of Earth Materials (AGU Focus Group)
 2009 **Council Member**, Geological Society of Washington

Workshop convener:

2023 **Organizing Committee**, Summer Program, Coop. Inst. for Dynamic Earth Research
 2022 **Organizing Committee**, GeoPRISMS Data Legacy Workshop
 2019 **Organizing Committee**, GeoPRISMS AGU Mini-Workshop: Data, Science, & Education Legacy
 2019 **Organizing Committee**, GeoPRISMS AGU Mini-Workshop: Synthesis and Integration
 2019 **Organizing Committee**, Workshop on Mantle Water
 2019 **Steering Committee**, New Caledonia Peridotite Amphibious Drilling Workshop
 2019 **Organizing Committee**, GeoPRISMS Theoretical and Experimental Institute
 2017 **Organizing Committee**, Summer Program, Coop. Inst. for Dynamic Earth Research

Conference session convener/chair:

2021 Rift-2-Ridge Workshop *Leader of Q&A for day 1 talks*
 2020 Goldschmidt Conference *Mantle Formation and Evolution from Lithosphere to Deep Mantle*
 2020 ISRD CHES Workshop *In-situ Rock Deformation: Summary and planning forward*
 2019 Fluid Transport Modeling *Models for microscopic and short-time-scale mechanisms*
 2019 Mantle Water Workshop *Discussion session on SIMS and FTIR measurements*
 2018 AGU Fall Meeting *An integrated approach for obs., exp., & models of deformation*
 2018 Japan Geoscience Union *The lithosphere and the asthenosphere*

2017	AGU Fall Meeting	<i>PPEM: Transient and steady state rock deformation</i>
2016	AGU Fall Meeting	<i>Transform plate boundary behavior</i>
2016	AGU Fall Meeting	<i>PPEM: Rock deformation over various time & spatial scales</i>
2015	AGU Fall Meeting	<i>Rheology and dynamics of the lithosphere and asthenosphere</i>
2015	AGU Fall Meeting	<i>Peridotite records of mantle dynamics</i>
2015	AGU Fall Meeting	<i>Volatile distribution and cycling in the mantle</i>
2015	AGU Fall Meeting	<i>PPEM: Deformation mechanisms from crystals to plates</i>
2014	AGU Fall Meeting	<i>PPEM: Evolving rock structure</i>
2014	Goldschmidt Conference	<i>Oxidation state of the planets</i>
2013	AGU Fall Meeting	<i>Linking ductile deformation with geochemistry</i>
2012	Gordon Research Conf.	<i>Failure at high confining pressure II (Discussion Leader)</i>
2011	AGU Fall Meeting	<i>Volatiles in the Earth's mantle</i>
2011	AGU Fall Meeting	<i>Integrated studies of oceanic spreading centers</i>
2009	AGU Fall Meeting	<i>Advances from 30 years of ion microprobe</i>
2007	AGU Fall Meeting	<i>Origin and evolution of continents: Mantle perspectives</i>

Workshop and course participation:

2021	Rift-Ridge-Margins GeoPRISMS Meeting
2021	YPG Pod, Unlearning Racism in Geoscience (URGE)
2021	Second ISRD-RCN Virtual Science Workshop
2020	CIG Tectonics Community Science Workshop
2020	In-Situe Rock Deformation CHESSE Workshop
2020	Bystander Intervention Workshop
2019	Fluid Transport Modeling Workshop, Modeling Collaboratory for Subduction
2019	Workshop on Mantle Water
2019	New Caledonia Peridotite Amphibious Drilling Workshop
2017	Summer Program, Cooperative Institute for Dynamic Earth Research
2016	Community Workshop, Cooperative Institute for Dynamic Earth Research
2014	Workshop on Exploration of the Eastern Pacific Ocean, Ocean Exploration Trust
2013	Workshop on Ductile Rheology of the Southern California Lithosphere, SCEC
2012	Workshop on Scientific Drilling in the Samail Ophiolite, Sultanate of Oman
2012	Workshop on Advancing Experimental Rock Deformation Research
2012	Building U.S. Strategies for 2013-2023 Scientific Ocean Drilling, IODP
2010	Reaching the Mantle Frontier Workshop, Deep Carbon Observatory
2009	MARGINS Volatiles in the Subduction Factory Theoretical & Experimental Institute
2009	Cooperative Institute for Deep Earth Research Community Workshop
2009	Marine Geoscience Leadership Symposium
2006	Summer Program, Cooperative Institute for Deep Earth Research

Manuscript reviewer: Contributions to Mineralogy and Petrology; Earth and Planetary Science Letters; Geochimica et Cosmochimica Acta; Geology; International Geology Review; Journal of Geophysical Research; Journal of Petrology; Lithos; Nature; Nature Communications; Nature Geoscience; Reviews in Mineralogy and Geochemistry; Tectonophysics.

Proposal reviewer: National Science Foundation; Department of Energy; European Research Council; FONDECYT Chile; InterRidge.

Professional Affiliations

2002-present	Member , American Geophysical Union
2014-present	Member , Geochemical Society
2008-present	Member , Geological Society of Washington
2002-present	Member , Mineralogical Society of America

WHITE PAPERS

- Parnell-Turner, R., **J.M. Warren**, S.J. Sim, Z. Eilon, and L. Montesi, 2021. Whitepaper: U.S. Inter-Ridge Membership, *Rift2Ridge Workshop*.
- Wada, I., L. Karlstrom, D. Arcay, L. Caricchi, P. Fulton, T. Gerya, K. Iacovino, T. Keller, R. Lauer, G. Lotto, L. Montesi, T. Sun, H. Vrijmoed, and **J.M. Warren**, 2019. Modeling Collaboratory for Subduction RCN: Fluid Migration Workshop Report.
- Warren, J.M.**, J.J. McGuire, C.R. German, and J.A. Collins, 2014. White Paper: Hydrothermal circulation search on the Garrett transform fault, East Pacific Rise, *Workshop on Exploration of the Eastern Pacific Ocean*, Ocean Exploration Trust.
- McGuire, J.J., J.A. Collins, and C.R. German, **J.M. Warren**, 2014. White Paper: Searching for hydrothermal circulation on the Gofar transform fault, East Pacific Rise, *Workshop on Exploration of the Eastern Pacific Ocean*, Ocean Exploration Trust.
- Kelley, K.A., **J.M. Warren**, E. Cottrell, and D. Cardace, 2014. White Paper: Forearc to Arc Transition in the Northern Tonga Trench, *Workshop on Exploration of the Eastern Pacific Ocean*, Ocean Exploration Trust.

CONFERENCE ABSTRACTS

*Since 2017 (*invited; †Warren lab member; ‡student collaborating with lab)*

- Bahruth, M.B., **J.M. Warren**, C. Prigent, D.M. Schwartz, J.L. Andrys, K.-Y. Lin, M.D. Behn, T.A. Morrow, W. Fan, J. Gong, E. Roland, M.S. Boettcher, Y. Liu, C.R. German, J. Collins, 2021. Aseismic movement of Gofar Transform Fault may be aided by formation of clay-bearing basaltic breccias, *submitted to AGU Fall Meeting*.
- Boettcher, M.S., **J.M. Warren**, M.D. Behn, G. Hirth, 2021. A Synoptic Model for Slip on Mid-Ocean Ridge Transform Faults, *submitted to AGU Fall Meeting*.
- *Gong, J., W. Fan, M.S. Boettcher, J.J. McGuire, J.A. Collins, **J.M. Warren**, M.D. Behn, E. Roland, C.R. German, Y. Liu, and T.A. Morrow, 2021. Using microearthquakes to investigate the earthquake preparation process at the Gofar Transform Fault, East Pacific Rise, *submitted to AGU Fall Meeting*.
- Kumamoto, K.M., L.N. Hansen, D. Wallis, B.-S. Li, D.E.J. Armstrong, D.L. Goldsby, **J.M. Warren**, and Angus J. Wilkinson, 2021. Water does not influence the plasticity of olivine at low temperatures, *submitted to AGU Fall Meeting*.
- Lin, K.-Y. and **J.M. Warren**, 2021. Trace element systematics of abyssal peridotite olivine: implications for ridge melting and melt transport, *submitted to AGU Fall Meeting*.
- Morrow, T.A., E. Roland, **J.M. Warren**, M.D. Behn, J.A. Collins, W. Fan, J. Gong, C. Prigent, D.M. Schwartz, M. Bahruth, J.L. Andrys, K.-Y. Lin, M.S. Boettcher, J.J. McGuire, Y. Liu, C.R. German, 2021. 4CAST Gofar: New Observations of Structure, Tectonics, Magmatism, and Hydrothermal Activity within the Gofar Transform Fault, *submitted to AGU Fall Meeting*.
- P. Moyer, M.S. Boettcher, J. Gong, W. Fan, J.J. McGuire, **J.M. Warren**, M.D. Behn, J.A. Collins, E. Roland, C.R. German, and Y. Liu, 2021. Variations in Earthquake Stress Drop on Gofar Transform Fault at the End of the 2020 Seismic Cycle, *submitted to AGU Fall Meeting*.

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- Schwartz, D.M., J.L. Andrys, **J.M. Warren**, M.D. Behn, M.B. Bahruth, K.-Y. Lin, C. Prigent, T.A. Morrow, M.D. Schmitz, M.S. Boettcher, 2021. Insights into 3 Ma of Mid-Ocean Ridge Mantle Source Heterogeneity from the Gofar Transform Fault, East Pacific Rise, *submitted to AGU Fall Meeting*.
- Rowe, M.C., A. Johnson, J. Hammond, S. Wang, R.L. Hervig, **J.M. Warren**, 2020. Mantle H₂O and δ D associated with melt reactions in a supra-subduction ophiolite, *Goldschmidt Conference*, Virtual.
- Birner, S.K., E. Cottrell, F.A. Davis, **J.M. Warren**, K.A. Kelley, and M. Said, 2019. Thermodynamic and Geochemical Heterogeneity within Mid-Ocean Ridge Peridotites, *AGU Fall Meeting*, V23B-03.
- Kohli, A.H., C. Prigent[†], M. Wolfson-Schwehr, M.S. Boettcher, and **J.M. Warren**, 2019. Deep hydrothermal circulation on oceanic transform faults controlled by the seismic cycle, *AGU Fall Meeting*.
- Lynn, K.J.[†], **J.M. Warren**, E. Cottrell, S.K. Birner, K.A. Kelley, and C.H. Langmuir, 2019. Gakkel Ridge basalts and peridotites record along-strike variations in f_{O_2} , *AGU Fall Meeting*, V14C-01.
- Rowe, M., A. Johnson, J. Hammond, S. Wang, R. Hervig, and **J.M. Warren**, 2019. Mantle H₂O and δ D associated with melt reactions in the upper mantle: Evidence from the Trinity Ophiolite, USA, *AGU Fall Meeting*, V51I-0161.
- Zhao, N.[‡], **J.M. Warren**, K.M. Kumamoto, R.F. Cooper, and G. Hirth, 2019. Constraining the olivine diffusion creep flow law using naturally deformed peridotite, *AGU Fall Meeting*, MR43A-02.
- Affinito, R.A.[†], C. Prigent[†], and **J.M. Warren**, 2019. Feedbacks between focused melt and localized deformation in the Josephine Peridotite, *AGU Virtual Poster Showcase*.
- Boettcher, M.S., P. Moyer, **J.M. Warren**, C. Prigent, and A. Kohli, 2019. Integrating Evidence from Peridotite Mylonites and Earthquake Stress Drops to Understand Slip on Oceanic Transform Faults, *TIGeR Conference: Pathways towards equilibrium in geological systems*, Curtin University, Australia.
- *Kumamoto, K.M.[†], **J.M. Warren**, and E.H. Hauri, 2019. Water, melt, and shear initiation in the Josephine Peridotite, SW Oregon, *Goldschmidt Conference*, Barcelona, Spain.
- *Prigent, C.[†], **J.M. Warren**, and A.H. Kohli, 2019. The effect of fluids on the mechanical and seismic behavior of the 'ductile' lithospheric mantle, *EGU General Assembly*, EGU2019-10920-1.
- Prigent, C.[†], **J.M. Warren**, A.H. Kohli, M. Wolfson-Schwehr, and C.P. Teyssier, 2019. Evidence for deep seawater percolation and mantle hydration on oceanic transform faults, *EGU General Assembly*, EGU2019-10542-2.
- ***Warren, J.M.**, K.M. Kumamoto[†], and E.H. Hauri, 2018. Observations of a complex interplay between melt, water, grain size, and viscous anisotropy during shear localization in the lithospheric mantle, *AGU Fall Meeting*, MR41A-01.
- Lynn, K.J.[†], E. Cottrell, **J.M. Warren**, K.A. Kelley, and C.H. Langmuir, 2018. An Oxidized Signature for the Gakkel Ridge 'Dupal-like' Isotopic Composition, *AGU Fall Meeting*, V11D-0058.
- Patterson, S.N.[†], K.J. Lynn[†], C. Prigent[†], and **J.M. Warren**, 2018. Analysis of Hydrothermal Alteration in Abyssal Peridotites from the Gakkel Ridge, *AGU Fall Meeting*, T33G-0508.
- Prigent, C.[†], **J.M. Warren**, and A.H. Kohli, 2018. The influence of hydrothermal fluid/mantle interac-

- tion processes on oceanic transform fault rheology, *Gordon Research Conference on Rock Deformation*.
- Wallis, D., L.N. Hansen, K.M. Kumamoto[†], C. Thom, O. Plümper, D.L. Goldsby, W.B. Durham, D.E.J. Armstrong, R. Goddard, T. Breithaupt, **J.M. Warren**, D.L. Kohlstedt, and A.J. Wilkinson, 2018. Dislocation interactions control the strength of olivine deforming by low-temperature plasticity, *Gordon Research Conference on Rock Deformation*, Andover, NH.
- *Warren, J.M.**, S.K. Birner[†], E. Cottrell, R.F. Katz, K.A. Kelley, and F.A. Davis, 2018. Source versus process: Peridotite constraints on magma genesis, *Goldschmidt Conference*, Boston, MA.
- Prigent, C.[†], **J.M. Warren**, and A.H. Kohli, 2018. Mantle deformation and fluid flow on oceanic transform faults, *InterRidge Workshop on Oceanic Transform Faults*, Brest, France.
- Harvey, J., J.M. Koornneef, **J.M. Warren**, M. Klaver, G.R. Davies, and R.D. Walshaw, 2018. The first Pb paradox and the composition of the sub-continental lithospheric mantle, *EGU General Assembly*, EGU2018-10044.
- van Zelst, I., K.B. Kwong, X. Tong, M.O. Eimer, Y. Hu, Y. Boneh, E. Schottenfels, Z. Zhan, M.S. Miller, L.N. Moresi, **J.M. Warren**, and D.A. Wiens, 2018. Linking intermediate depth seismicity to plate-bending related faulting, *EGU General Assembly*, EGU2018-4520.
- Birner, S.K.[†], F.A. Davis, E. Cottrell, J.M. Warren, and K.A. Kelley, 2017. Subsolidus cooling of mid-ocean ridge peridotites and implications for the oxygen fugacity of the oceanic upper mantle, *AGU Fall Meeting*, V33D-0554.
- Hu, Y., M.R. Guild, S. Naif, M.O. Eimer, O. Evans, K. Fornash, T.A. Plank, D.J. Shillington, F. Vervelidou, **J.M. Warren**, and Douglas Wiens, 2017. A multidisciplinary approach to constrain incoming plate hydration in the Central American Margin, *AGU Fall Meeting*, T23A-0586.
- *Kumamoto, K.M.**[†], C.A. Thom, D. Wallis, L.N. Hansen, D.E.J. Armstrong, D.L. Goldsby, **J.M. Warren**, and A.J. Wilkinson, 2017. Size effects in olivine control strength in low-temperature plasticity regime, *AGU Fall Meeting*, U13B-22.
- Kumamoto, K.M.[†] and **J.M. Warren**, 2017. Steady-state LPO is not always reached in high-strain shear zones, *AGU Fall Meeting*, MR43E-01.
- Kwong, K.B., I. van Zelst, X. Tong, M.O. Eimer, S. Naif, Y. Hu, Z. Zhan, Y. Boneh, E. Schottenfels, M.S. Miller, L.N. Moresi, **J.M. Warren**, and D.A. Wiens, 2017. Linking incoming plate faulting and intermediate depth seismicity, *AGU Fall Meeting*, T23A-0606.
- Lynn, K.J.[†] and **J.M. Warren**, 2017. Constraining the timescales of rehydration in nominally anhydrous minerals using 3D numerical diffusion models, *AGU Fall Meeting*, V33H-03.
- Prigent, C.[†], **J.M. Warren**, A.H. Kohli, and C.P. Teyssier, 2017. The semi-brittle to ductile transition in peridotite on oceanic faults: Mechanisms and P-T conditions, *AGU Fall Meeting*, MR31C-08.
- Warren, J.M.**, M.E. D'Errico[†], M. Godard, M.A. Coble, and M.F. Horan, 2017. Influence of melting and hydrothermal alteration on lead in abyssal peridotites, *AGU Fall Meeting*, V43D-0563.