

## CURRICULUM VITAE

**Karen M. Fischer**

Department of Earth, Environmental and Planetary Sciences  
Brown University, Providence, Rhode Island 02912 USA

### Education

Ph.D. in Geophysics, Massachusetts Institute of Technology, Cambridge, MA, 1989.  
Dissertation: *The Morphology and Dynamics of Subducting Lithosphere*.  
B.S. in Geology and Geophysics, *summa cum laude*, Yale University, New Haven, CT, 1983.

### Professional Appointments

7/19 - present      Louis and Elizabeth Scherck Distinguished Professor of Geological Sciences, Brown University  
7/02 - 6/19        Professor of Earth, Environmental and Planetary Sciences, Brown University  
7/04 - 6/07        Royce Family Professor in Teaching Excellence, Brown University  
7/96 - 6/02        Associate Professor of Geological Sciences, Brown University  
9/90 - 6/96        Assistant Professor of Geological Sciences, Brown University  
2/89 - 9/90        Postdoctoral Fellow, Lamont-Doherty Earth Observatory of Columbia University  
11/88 - 1/89       Postdoctoral Associate, Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology  
9/83 - 10/88      Graduate Research Assistant, Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology

### Research Focus

Using seismic waves to understand the structure, dynamics and evolution of Earth's interior

### Honors

Member of the American Academy of Arts and Sciences - 2025  
Inge Lehmann Medal, American Geophysical Union - 2023  
Meenakshi Narain Excellence in Research Mentoring Award, Brown University - 2023  
W. S. Jardetzky Medal, Lamont-Doherty Earth Observatory, Columbia University - 2022  
Harry Fielding Reid Medal, Seismological Society of America - 2019  
Beno Gutenberg Lecturer, American Geophysical Union - 2016  
Jack E. Oliver Visiting Professor, Cornell University - 2013 to 2015  
Fellow of the American Geophysical Union - 2010  
Karen T. Romer Award for Undergraduate Advising and Mentoring, Brown University - 2009  
Royce Family Professor in Teaching Excellence, Brown University - 2004 to 2007

### Service (Selected)

*Profession:*

Chair, Gordon Research Conference: Interior of the Earth - 6/23 to 7/25 (Co-chair 6/19 to 6/23)  
Nominating Committee, EarthScope Consortium – 1/24 to 10/25  
National Science Foundation Review Panels for the EarthScope (2006, 2008, 2010), Continental Dynamics (2008, 2009, 2011), Geophysics (2000-2003) programs and the Geosciences Directorate (2026)

Seismological Society of America Board of Directors - 4/21 to 4/24  
 Outstanding Reviewer Award - Earth and Space Science - 2024  
 College of Fellows Distinguished Lecturer, American Geophysical Union - 2021 and 2022  
 National Science Foundation Division of Earth Sciences Geophysical Facilities Portfolio  
 Review Committee - 7/20 to 4/21  
 Board of Directors, IRIS Consortium - 12/15 to 12/18, 12/04 to 12/07  
 Organizing Committee, EarthScope National Meeting - 8/16 to 5/17  
 Organizing Committee, EarthScope Synthesis Workshop on the Evolution of the Southern  
 Appalachian Lithosphere - 3/16 to 3/17  
 National Science Foundation EarthScope Lecturer - 2017 and 2018  
 Associate Editor, Science Advances - 9/14 to 9/16  
 Co-chair, Workshop on Future Seismic and Geodetic Facility Needs in the Geosciences - 12/14  
 to 9/15  
 Chair, Committee of Visitors, Deep Earth Processes Section, EAR Directorate, GEO Division,  
 National Science Foundation - 1/14 to 10/14  
 National Science Foundation Geosciences Advisory Committee - 3/12 to 12/14  
 President, Seismology Section, American Geophysical Union - 1/13 to 12/14 (President-elect  
 7/10 to 12/12; Past President 1/15 to 12/16)  
 Secretary, Seismology Section, American Geophysical Union - 7/06 to 7/08  
 American Geophysical Union Ethics Committee - 7/11 to 12/12  
 American Geophysical Union Grand Challenges Committee - 1/12 to 12/12  
 American Geophysical Union Lehman Award Committee – 2007 and 2009  
 National Science Foundation Review Panels for the EarthScope (2006, 2008, 2010),  
 Continental Dynamics (2008, 2009, 2011) and Geophysics (2000-2003) Programs  
 International Development Seismology Committee, IRIS Consortium -9/06 to 12/11  
 Co-convener, Geophysical Hazards and Plate Boundary Processes in  
 Central America, Mexico and the Caribbean: A Workshop to Build Seismological  
 Collaboration and Capacity (NSF/USAid) - 1/09 to 11/10  
 Co-chair, NSF EarthScope Science Plan Workshop and Report - 7/09 to 2/10  
 Co-convener, MARGINS Theoretical and Experimental Institute: Volatiles in the Subduction  
 Factory - 07/08 to 3/10  
 National Science Foundation MARGINS Distinguished Lecturer - 2006 and 2008  
 Editor, Geochemistry, Geophysics, Geosystems (G<sup>3</sup>) - 2/03 to 8/05  
 Review Panel for the Mellon Foundation Career Enhancement Awards for Junior Faculty from  
 Underrepresented Groups - 12/01 to 2/06  
 Global Seismic Network Committee, IRIS Consortium - 1/04 to 12/04  
 American Geophysical Union Excellence in Geophysical Education Award Committee - 7/00  
 to 12/03  
 Education and Outreach Committee, IRIS Consortium - 12/96 to 12/98  
 Executive Committee, IRIS Consortium - 12/95 to 12/97  
 Data Management System Standing Committee, IRIS Consortium - 1/93 to 12/95  
 Associate Editor, Journal of Geophysical Research (Solid Earth) - 1/92 to 12/95  
 National Science Foundation Site Review Panel for the Southern California Earthquake Center  
 - 8/96  
 U. S. Geological Survey NEHRP Proposal Evaluation Panels (1993, 1994, 1997, 1998)

*University:*

Dean of the Faculty Advisory Committee, 1/26 to present  
Mentor, Junior Faculty Mentoring Program, Dean of the Faculty Office - 9/11 to present  
Promotion Demystified: A Workshop for Associate Professors in the Sciences - 4/26

Workshop on Navigating the NSF Grant System for the Brown Postdoc Council  
Skills 101 Workshop Series - 3/23  
Search Committee for IBES Director - 11/19 to 1/20  
Doctoral Education Strategic Planning Committee - 9/12 to 5/13  
Search Committee for the Provost - 1/98 to 5/98 and 12/10 to 4/11  
Search Committee for the Vice-President for International Affairs - 6/09 to 8/09  
Science Advisory Board (Undergrad Science Resource Center and its programs) - 9/07 to 12/12  
Advisory Board, Sheridan Center for Teaching and Learning - 7/02 to 7/11 (Chair 7/06 to 7/08)  
ADVANCE Steering Committee - 5/06 to 12/11  
Chair of Undergraduate Science Education Committee - 9/06 to 9/07  
Tenure, Promotions and Appointments Committee (TPAC) - 7/03 to 12/05 (Vice-Chair 9/04 to 7/05, Chair 7/05 to 12/05)  
Search Committee for the Dean of Admissions - 2/05 to 7/05  
Search Committee for the Dean of the Faculty - 1/04 to 5/04  
Resumed Undergraduate Education Policy and Admissions Committee (RUEPAC) - 7/01 to 7/04 (Chair 7/02 to 7/04)  
Committee on the Status of Women - 7/96 to 7/99 (Chair 7/97 to 7/99)  
College Curriculum Council - 7/98 to 7/00 (Vice-chair 9/99 to 7/00)  
University Benefits Review Committee - 7/92 to 1/99

*Department:*

PI of Dynamic Earth in the 21st Century, the DEEPS-Leadership Alliance summer undergraduate research program - 1/16 to present (NSF EAR REU since 1/19)  
Advisor to Geophysics and Climate Physics Concentration (formerly Geology-Physics/Math) - 9/90 to 12/19, 7/24 to present  
First-year and Sophomore Advisor – many years; most recently 9/24 to present  
Director of Undergraduate Studies - 7/20 to 12/23  
Diversity and Inclusion Action Committee - 1/17 to 12/23  
Chair's Advisory Committee - 7/97 to 7/00, 7/04 to 12/05, 7/06 to 12/13, 7/14 to 7/22  
Curriculum Committee - 7/94 to 7/97, 7/02 to 7/03, 7/05 to 12/05, 7/08 to 7/09  
Numerous search, promotion and mentoring committees

**Seismometer Deployments**

(All data archived at the EarthScope Data Management System)

Missouri to Massachusetts Broadband Seismometer Experiment, U.S. - 1995 to 1996  
NOMAD Broadband Seismometer Experiment, northeastern U.S. - 1997 to 1999  
Florida to Edmonton Broadband Seismometer Experiment, U.S. and Canada - 2001 to 2002  
TUCAN Broadband Seismometer Experiment, Costa Rica and Nicaragua - 2004 to 2006  
SESAME Broadband Seismometer Experiment, southeastern U.S. - 2010 to 2014

**Teaching**

Courses:

2025-2026:

Semester I: EEPS 0220 – Understanding Earth and Environmental Processes (with Greg Hirth)

Semester II: EEPS 1650 - Earthquake Seismology

2024-2025:

Semester I: EEPS 0220 – Understanding Earth and Environmental Processes (with Greg Hirth)

Semester II: EEPS 2920K – Understanding the Mantle, Ice Sheets and their Interactions in Antarctica (with Victor Tsai)

2023-2024:

Semester I: EEPS 0220 – Understanding Earth and Environmental Processes (with Greg Hirth)

Semester II: Sabbatical

### **Student and Postdoc Research Advising**

Ph.D. Students:

Xiaoping Yang ('95)

Matthew Fouch ('99)

Aibing Li ('00, with Don Forsyth)

Chad Hall ('02, Marc Parmentier primary advisor)

Dayanthie Weeraratne ('05, Don Forsyth primary advisor, Marc Parmentier co-advisor)

Sarah Zaranek ('05, Marc Parmentier primary advisor)

Catherine Rychert ('07)

David Abt ('09)

Heather Ford ('13)

Julia MacDougall ('14)

Emily Hopper ('16)

Junlin Hua ('22)

Isabella Gama Dantas ('22)

Hannah Krueger ('23)

Sarah Bowers

Jessica Wen

Masters Students:

Mariela Salas ('09)

Daniel Friedman ('17)

Post-docs:

Stéphane Rondenay (2001-2003)

Vedran Lekić (2010-2011)

Margarete Jadamec (2011-2014)

Nicholas Mancinelli (2016-2018)

Zachary Eilon (2016-2017)

Eva Golos (2020-2022)

Kai-Xun Chen (2021-2023)

Michael Mann (2022-2025)

Brown Senior Theses: Michael Pasyanos ('91); Chad Nelsen ('92); Erich Roth ('93); Morgan Kinniburgh ('93); Eddy Gonzalez ('94); Julia Zaslow ('96), Alexander Stine ('96, with Marc Parmentier), Kristin Soule ('99), Colleen Dalton ('00), Ursula Manners ('00), Margaret Welsh ('02), Ellen Syracuse ('03), Lindsey Doermann ('04), Elliot Grunewald ('05), Laura Martin ('06), Scott French ('07), Marsella Kachingwe ('11), Jocelyn West ('13), Alec Miller ('13.5), Greg Jordan-Detamore ('14), Adam Gilbert ('16), Camera Ford ('16), Alexandra Kim ('17), Emmanuel Guerzon ('17), Yichen Geng ('19), Samantha Ouertani ('22), Anna Novatney ('23)

Other Undergraduate Research Projects Advised: Lynn Salvati, Elizabeth Wolf, Mariela Salas (Leadership Alliance Intern), Octavia Crompton, Natacha Meyer, Alexis Walker, Mila Owen, Erika Lopez-Garcia, Jenna Washington (Leadership Alliance Intern, Summer 2016), Joshua McDuffie (Leadership Alliance Intern, Summer 2017), Yichen Geng (UTRA, Summer 2017), Angel Santiago (Leadership Alliance Intern, Summer 2018), Zev Izenberg (UTRA, Summer 2019), Samantha Ouertani (UTRA, Summer 2019), Emily Carrero Mustelier (Leadership Alliance Intern, Summer 2020), Kara Jaramillo (Leadership Alliance Intern, Summer 2020), Grace Ward (Leadership Alliance Intern, Summer 2021), Gabrielle Rose (Leadership Alliance Intern, Summer 2023), Nicolas Valencia (Leadership Alliance Intern, Summer 2024), Ella Creane (UTRA, Spring 2026)

### Peer-reviewed Publications (117)

\* = student or postdoc advisee

Brunsvik, B., Z. Eilon, A. Hariharan, E. Golos, K. M. Fischer, A new plate-scale model of the conterminous US from joint inversion of a suite of seismic data, *J. Geophys. Res.*, submitted.

Lin, J., T. Yang, Z. Li, Y. Wu, Y. Wang, D. Liu, K. van Wijk, M. Soulsby, H. Chevallier, J. P. Morgan, Z. Guo, M. K. Savage, G. A. Abers, K. M. Fischer, Seismic experiment studying the origin of Auckland Volcanic Field: Phase I Seafloor Dataset, *Seism. Res. Lett.*, submitted.

Golos, E. M., K. M. Fischer, Z. Eilon, Seismic constraints on temperature, partial melt, and lithosphere-asthenosphere dynamics in the southwestern United States, *Geochem. Geophys. Geosyst.*, 27, e2025GC012755, doi:10.1029/2025GC012755, 2026.

Li, A., K. M. Fischer, J. Wu, Z. Tao, Reply to Comment by Peace et al. on *Revealing the Cape Verde Hotspot Track Across the Great Lakes*, *Geophys. Res. Lett.*, 52, e2025GL118941, doi: 10.1029/2025GL118941, 2025.

\*Brown, S. E., K. M. Fischer, Investigating the Antarctic Lithosphere through Sp Receiver function analysis, *Geochem. Geophys. Geosyst.*, 26, e2025GC012268, doi: 10.1029/2025GC012268, 2025.

Tao, Z., A. Li, J. Wu, K. M. Fischer, Revealing the Cape Verde hotspot track across the Great Lakes, *Geophys. Res. Lett.*, 52, e2024GL110777, doi:10.1029/2024GL110777, 2025.

\*Carrero Mustelier, E., K. M. Fischer, \*J. Hua, \*I. Gama, P. C. La Femina, M. Higgins, Relationships between upper plate structure, mantle wedge melting and fore-arc sliver transport in the Nicaraguan subduction zone, *The Seismic Record*, 4, 252-258, doi.org/10.1785/0320240026, 2024.

- \*Golos, E., B. Brunsvik, Z. Eilon, K. M. Fischer, J. Byrnes, J. Gaherty, A new view of shear wavespeed and the lithosphere-asthenosphere boundary in the southwestern United States, *J. Geophys. Res.*, 129, e2024JB029220, doi:10.1029/2024JB029220, 2024.
- \*Chen, K.-X., D. W. Forsyth, K. M. Fischer, A mid-lithospheric discontinuity detected beneath 155 Ma western Pacific seafloor using Sp receiver functions, *Geophys. Res. Lett.*, 51, e2024GL108347, doi:10.1029/2024GL108347, 2024.
- Durand, S., M. Putak Juriček, K. M. Fischer, Hydrous melting and its seismic signature, *Elements*, 20, 241-246, doi: 10.2138/gselements.20.4.241, 2024.
- \*Mann, M. E., K. M. Fischer, J. A. Benowitz, Insights into inherited crustal features and Southern Alaska tectonic history from Sp receiver functions, *Tectonics and Seismic Structure of Alaska and Northwestern Canada: EarthScope and Beyond*, *Geophysical Monograph 290*, N. A. Ruppert, M. A. Jadamec, J. T. Freymueller eds., American Geophysical Union, 335-353, doi:10.1002/9781394195947.ch12, 2024.
- Yang, X., \*M. E. Mann, K. M. Fischer, M. Jadamec, S. Wei, G. Pavlis, A. Schaeffer, Synthesis of the seismic structure of the greater Alaska region: Continental lithosphere, *Tectonics and Seismic Structure of Alaska and Northwestern Canada: EarthScope and Beyond*, *Geophysical Monograph 290*, N. A. Ruppert, M. A. Jadamec, J. T. Freymueller eds., American Geophysical Union, 185-214, doi:10.1002/9781394195947.ch6, 2024.
- Pavlis, G., M. Jadamec, \*M. E. Mann, X. Yang, A. Schaeffer, S. Wei, K. M. Fischer, Synthesis of the Seismic Structure of the Greater Alaska Region: Subducting Slab Geometry, *Tectonics and Seismic Structure of Alaska and Northwestern Canada: EarthScope and Beyond*, *Geophysical Monograph 290*, N. A. Ruppert, M. A. Jadamec, J. T. Freymueller eds., American Geophysical Union, 237-266, doi:10.1002/9781394195947.ch8, 2024.
- Jadamec, M., G. Pavlis, X. Yang, K. M. Fischer, S. Wei, \*M. E. Mann, A. Schaeffer, Synthesis of the Seismic Structure of the Greater Alaska Region: Geodynamics Implications, *Tectonics and Seismic Structure of Alaska and Northwestern Canada: EarthScope and Beyond*, *Geophysical Monograph 290*, N. A. Ruppert, M. A. Jadamec, J. T. Freymueller eds., American Geophysical Union, 267, doi:10.1002/9781394195947.ch9, 2024.
- \*Hua, J., K. M. Fischer, T. W. Becker, E. Gazel, G. Hirth, Asthenospheric low velocity zone consistent with globally prevalent partial melting, *Nature Geo.*, doi: 10.1038/s41561-022-01116-9, 2023.
- \*Hua, J., K. M. Fischer, E. Gazel, E. M. Parmentier, G. Hirth, Long-distance asthenospheric transport of plume-influenced mantle, *Geochem. Geophys. Geosyst.*, 24, e2022GC010605, doi:10.1029/2022GC010605, 2023.
- \*Gama, I., K. M. Fischer, C. A. Dalton, Z. Eilon, Variations in lithospheric thickness across the Denali Fault and in northern Alaska, *Geophys Res. Lett.*, 49, e2022GL101256, doi:10.1029/2022GL101256, 2022.
- \*Gama, I., K. M. Fischer, \*J. Hua, Mapping the lithosphere and asthenosphere beneath Alaska with Sp converted waves, *Geochem. Geophys. Geosyst.*, 23, e2022GC010517, doi:10.1029/2022GC010517, 2022.
- Higgins, M., P. C. La Femina, A. J. Saballos, \*S. Ouertani, K. M. Fischer, H. Geirsson, W. Strauch, G. Mattioli, R. Malservisi, Cascading hazards in a migrating forearc-arc system: Earthquake and eruption triggering in Nicaragua, *J. Geophys. Res.*, 127, e2022JB024899, doi: 10.1029/2022JB024899, 2022.
- \*Golos, E. M., K. M. Fischer, New insights into lithospheric structure and melting beneath the Colorado Plateau, *Geochem. Geophys. Geosyst.*, 23, e2021GC010252, doi: 10.1029/2021GC010252, 2022.

- \*Krueger, H. E., \*I. Gama, K. M. Fischer, Global variation in cratonic mid-lithospheric discontinuities from Sp receiver functions, *Geochem. Geophys. Geosyst.*, 22, e2021GC009819, doi: 10.1029/2021GC009819, 2021.
- \*Nathan, E., \*A. Hariharan, D. Florez, K. M. Fischer, Multi-layer seismic anisotropy beneath Greenland, *Geochem. Geophys. Geosyst.*, 22, e2020GC009512, doi:10.1029/2020GC009512, 2021.
- \*Gama, I., K. M. Fischer, Z. Eilon, \*H. E. Krueger, C. A. Dalton, L. M. Flesch, Shear-wave velocity structure beneath Alaska from a Bayesian joint inversion of Sp receiver functions and Rayleigh wave phase velocities, *Earth Planet. Sci. Lett.*, 560, 116785, doi: 10.1016/j.epsl.2021.116785, 2021.
- Saha, S., Y. Peng, R. Dasgupta, M. Mookherjee, K. M. Fischer, Assessing the presence of volatile-bearing mineral phases in the cratonic mantle as a possible cause of mid-lithospheric discontinuities, *Earth Planet. Sci. Lett.*, 553, 116602, doi: 10.1016/j.epsl.2020.116602, 2021.
- Fischer, K. M., C. A. Rychert, C. A. Dalton, M. S. Miller, C. Beghein, D. L. Schutt, A comparison of oceanic and continental mantle lithosphere, *Phys. Earth Planet. Int.*, 309, 106600, doi:10.1016/j.pepi.2020.106600, 2020.
- \*Hua, J., K. M. Fischer, M. Wu., M., N. A. Blom, New approaches to multifrequency Sp stacking tested in the Anatolian region, *J. Geophys. Res.*, 125, e2020JB020313, doi: 10.1029/2020JB020313, 2020.
- Tao, Z., A. Li, K. M. Fischer, Hotspot signatures at the North American passive margin, *Geology*, 49, doi: 10.1130/G47994.1, 2020.
- \*Chen, K.-X., K. M. Fischer, \*J. Hua, Y. Gung, Imaging crustal melt beneath northeast Japan with Ps receiver functions, *Earth Planet. Sci. Lett.*, 537, 116173, doi: 10.1016/j.epsl.2020.116173, 2020.
- \*Hua, J., K. M. Fischer, N. J. Mancinelli, T. Bao, Imaging with pre-stack migration based on Sp scattering kernels, *Geophys. J. Int.*, 220, 428-449, doi: 10.1093/gji/ggz459, 2019.
- Daniels, C., Z. Peng, Q. Wu, S. Ni, X. Meng, D. Yao, L. Wagner, K. Fischer, The 2014 Mw 4.1 South Carolina earthquake sequence: Aftershock productivity, hypocentral depths, and stress drops, *Seismol. Res. Lett.*, 91, 452-464, doi: 10.1785/0220190034, 2019.
- \*Hopper, E. and K. M. Fischer, The changing face of the lithosphere-asthenosphere boundary: Imaging continental scale patterns in upper mantle structure across the contiguous U.S. with Sp converted waves, *Geochem. Geophys. Geosyst.*, 19, doi:10.1029/2018GC007476, 2018.
- \*Eilon, Z., K. M. Fischer, C. A. Dalton, An adaptive Bayesian inversion for upper mantle structure using surface waves and scattered body waves, *Geophys. J. Int.*, 214, 232-253, doi:10.1093/gji/ggy137, 2018.
- Wagner, L. S., K. M. Fischer, R. Hawman, E. Hopper, D. Howell, The relative roles of inheritance and long-term passive margin lithospheric evolution on the modern structure and tectonic activity in the southeastern United States, *Geosphere*, doi: 10.1130/GES01593.1, 2018.
- Jadamec, M. A., O. Kreylos, B. Chang, K. M. Fischer, and B. M. Yikilmaz, A visual survey of global slab geometries and implications for a three-dimensional subduction paradigm, *Earth and Space Science*, doi:10.1002/2017EA000349, 2018.
- Hu, J., L. Liu, M. Faccenda, Q. Zhou, K. M. Fischer, S. Marshak, C. Lundstrom, Southern hemisphere cratonic root loss due to plume-lithosphere interaction, *Nature Geo.*, 11, 203-210, doi:10.1038/s41561-018-0064-1, 2018.
- Chen, C., H. Gilbert, K. M. Fischer, C. L. Andronicos, G. L. Pavlis, M. W. Hamburger, S.

- Marshak, T. H., Larson, X., Tang, X., Lithospheric discontinuities beneath the U.S. Midcontinent - signatures of Proterozoic terrane accretion and failed rifting, *Earth Planet. Sci. Lett.*, 481, 223-235, 10.1016/j.epsl.2017.10.033, 2018.
- \*Hua, J., K. M. Fischer, M. K. Savage, The lithosphere-asthenosphere boundary beneath the South Island of New Zealand, *Earth Planet. Sci. Lett.*, 484, 92-102, 10.1016/j.epsl.2017.12.011, 2018.
- \*Mancinelli, N. J., K. M. Fischer, The spatial sensitivity of Sp converted waves---Scattered wave kernels and their applications to receiver-function migration and inversion, *Geophys. J. Int.*, 212, 1722–1735, doi: 10.1093/gji/ggx506, 2017.
- \*Mancinelli, N. J., K. M. Fischer, C. A. Dalton, How sharp is the cratonic lithosphere-asthenosphere transition?, *Geophys. Res. Lett.*, 43, 10.1002/2017GL074518, 2017.
- \*MacDougall, J., M. A. Jadamec, K. M. Fischer, The zone of influence of the subducting slab in the asthenospheric mantle, *J. Geophys. Res.*, 122, 6599–6624, 10.1002/2017JB014445, 2017.
- Lekić, V., K. M. Fischer, Interpreting Sp Receiver Functions, *Geophys. J. Int.*, 210, 874-886, 2017.
- \*Hopper, E., K. M. Fischer, L. S. Wagner, R. B. Hawman, Reconstructing the end of the Appalachian Orogeny, *Geology*, 45, 15-18, 10.1130/G38453.1, 2017.
- \*Hopper, E., K. M. Fischer, S. Rondenay, R. B. Hawman, L. S. Wagner, Imaging crustal structure beneath the southern Appalachians with wavefield migration, *Geophys. Res. Lett.*, 43, 12,054–12,062, 10.1002/2016GL071005, 2016.
- Parker Jr., E. H., R. B. Hawman, K. M. Fischer, L. S. Wagner, Estimating crustal thickness using SsPmp in regions covered by low-velocity sediments: Imaging the Moho beneath the SESAME array, SE Atlantic Coastal Plain, *Geophys. Res. Lett.*, 43, 9627–9635, 10.1002/2016GL070103, 2016.
- Biryol, C. B., L. S. Wagner, K. M. Fischer, R. B. Hawman, Relationship between observed upper mantle structures and recent tectonic activity across the Southeastern United States, *J. Geophys. Res.*, 121, 10.1002/2015JB012698, 2016.
- \*Hopper, E., K. M. Fischer, The meaning of midlithospheric discontinuities: A case study in the northern U.S. craton, *Geochem. Geophys. Geosyst.*, 16, 4057–4083, 10.1002/2015GC006030, 2015.
- Parker Jr., E. H., R. B. Hawman, K. M. Fischer, L. S. Wagner, Constraining lithologic variability along the Alleghanian detachment in the southern Appalachians using passive-source seismology, *Geology*, 43, 431-434, 10.1130/G36517.1, 2015.
- \*MacDougall, J. G., K. M. Fischer, D. W. Forsyth, R. B. Hawman, L. S. Wagner, Shallow mantle velocities beneath the southern Appalachians from Pn phases, *Geophys. Res. Lett.*, 42, 10.1002/2014GL062714, 2015.
- Fischer, K. M., Crust and Lithospheric Structure - Seismological Constraints on the Lithosphere-Asthenosphere Boundary. In: Gerald Schubert (editor-in-chief) *Treatise on Geophysics*, 2nd edition, Oxford: Elsevier, pp. 587-612, 10.1016/B978-0-444-53802-4.00026-9, 2015.
- Abers, G. A., K. M. Fischer, G. Hirth, D. A. Wiens, T. Plank, B. K. Holtzman, C. McCarthy, E. Gazel, Reconciling mantle attenuation-temperature relationships from seismology, petrology, and laboratory measurements, *Geochem. Geophys. Geosyst.*, 15, 10.1002/2014GC005444, 2014.
- \*MacDougall, J. G., C. Kincaid, S. Szwaja, K. M. Fischer, The impact of slab dip variations, gaps, and rollback on mantle wedge flow: insights from fluids experiments, *Geophys. J. Int.*, 197, 705-730, 10.1093/gji/ggu053, 2014.

- Calixto, F. J., D. Robinson, E. Sandvol, S. Kay, D. Abt, K. Fischer, B. Heit, X. Yuan, D. Comte, P. Alvarado, Shear wave splitting and shear wave splitting tomography of the southern Puna plateau, *Geophys. J. Int.*, 199, 688-699. 10.1093/gji/ggu296, 2014.
- \*Ford, H. S., K. M. Fischer, V. Lekić, Localized shear in the deep lithosphere beneath the San Andreas fault system, *Geology*, 42, 295-298, 10.1130/G35128.1, 2014.
- \*Hopper, E., \*H. A. Ford, K. M. Fischer, V. Lekić, M. J. Fouch, The lithosphere-asthenosphere boundary and the tectonic and magmatic history of the northwestern United States, *Earth. Planet. Sci. Lett.*, 402, 69-81, 10.1016/j.epsl.2013.12.016, 2014.
- \*Lekić, V., K. M. Fischer, Contrasting lithospheric signatures across the western United States revealed by Sp receiver functions, *Earth. Planet. Sci. Lett.*, 402, 90-98, 10.1016/j.epsl.2013.11.026, 2014.
- Parker, E. H., R. B. Hawman, K. M. Fischer, L. S. Wagner, Crustal evolution across the southern Appalachians: initial results from the SESAME broadband array, *Geophys. Res. Lett.*, 40, 3853–3857, 10.1002/grl.50761, 2013.
- Harmon, N., \*M. Salas de la Cruz, C. A. Rychert, G. A. Abers and K. M. Fischer, Crustal and mantle shear velocity structure of Costa Rica and Nicaragua from ambient noise and teleseismic Rayleigh wave tomography, *Geophys. J. Int.*, 195, 1300-1313, 10.1093/gji/ggt309, 2013.
- \*MacDougall, J. M., K. M. Fischer, and M. L. Anderson, Seismic anisotropy above and below the subducting Nazca lithosphere in southern South America, *J. Geophys. Res.*, 117, B12306, 10.1029/2012JB009538, 2012.
- \*Lekić, V., \*S. W. French, and K. M. Fischer, Lithospheric thinning beneath rifted regions of Southern California, *Science*, 334, 783-787, 10.1126/science.1208898, 2011.
- Yuan, H., B. Romanowicz, K. M. Fischer, and \*D. L. Abt, 3-D shear wave radially and azimuthally anisotropic velocity model of the North American upper mantle, *Geophys. J. Int.*, 184, 1237-1260, 10.1111/j.1365-246X.2010.04901.x, 2011.
- \*Ford, H. A., K. M. Fischer, \*D. L. Abt, Catherine A. Rychert, L. T. Elkins-Tanton, The lithosphere-asthenosphere boundary and cratonic lithospheric layering beneath Australia from Sp wave imaging, *Earth Planet. Sci Lett.*, 300, 299-310, 10.1016/j.epsl.2010.10.007, 2010.
- \*Abt, D. L., K. M. Fischer, \*S. W. French, \*H. A. Ford, H. Yuan, and B. Romanowicz, North American lithospheric discontinuity structure imaged by Ps and Sp receiver functions, *J. Geophys. Res.*, 115, B09301, 10.1029/2009JB006914, 2010a.
- Fischer, K. M., \*H. A. Ford, \*D. L. Abt, C. A. Rychert, The lithosphere-asthenosphere boundary, *Ann. Rev. Earth Planet. Sci.*, 38, 551-575, 10.1146/annurev-earth-040809-152438, 2010.
- Rychert, C. A., P. M. Shearer, K. M. Fischer, Scattered wave imaging of the lithosphere-asthenosphere boundary, *Lithos*, 120, 173–185, 10.1016/j.lithos.2009.12.006, 2010.
- Till, C. B., L. T. Elkins-Tanton, and K. M. Fischer, A mechanism for low-extent melts at the lithosphere-asthenosphere boundary, *Geochem. Geophys. Geosyst.*, 11, Q10015, 10.1029/2010GC003234, 2010.
- \*Abt, D. L., K. M. Fischer, G. A. Abers, J. M. Protti, V. González, and W. Strauch, Constraints on upper mantle anisotropy surrounding the Cocos Slab from SK(K)S splitting, *J. Geophys. Res.*, 115, B06316, 10.1029/2009JB006710, 2010b.
- MacKenzie, L. S., G. A. Abers, S. Rondenay, K. M. Fischer, Imaging a steeply dipping subducting slab in southern Central America, *Earth. Planet. Sci. Lett.*, 296, 459-468, 10.1016/j.epsl.2010.05.033, 2010.
- \*French, S.W., L. M. Warren, K. M. Fischer, G. A. Abers, W. Strauch, J. M. Protti, and V.

- González, Constraints on upper-plate deformation in the Nicaraguan subduction zone from earthquake relocation and directivity analysis, *Geochem. Geophys. Geosyst.*, *11*, Q03S20, 10.1029/2009GC002841, 2010.
- \*Abt, D. L., K. M. Fischer, G. A. Abers, W. Strauch, J. M. Protti, and V. González, Shear wave anisotropy beneath Nicaragua and Costa Rica: Implications for flow in the mantle wedge, *Geochem. Geophys. Geosyst.*, *10*, Q05S15, 10.1029/2009GC002375, 2009.
- \*French, S. W., K. M. Fischer, E. M. Syracuse, and M. E. Wysession, Crustal structure beneath the Florida-to-Edmonton broadband seismometer array, *Geophys. Res. Lett.*, *36*, L08309, 10.1029/2008GL036331, 2009.
- \*Rychert, C. A., K. M. Fischer, G. A. Abers, T. Plank, E. Syracuse, J. M. Protti, V. Gonzalez, W. Strauch, Strong Along-Arc Variations in Attenuation in the Mantle Wedge beneath Costa Rica and Nicaragua, *Geochem. Geophys. Geosys.*, *9*, Q10S10, 10.1029/2008GC002040, 2008.
- Hoernle K., \*D.L. Abt, K.M. Fischer, H. Nichols, F. Hauff, G. Abers, P. van den Bogaard, G. Alvarado, M. Protti, W. Strauch, Geochemical and geophysical evidence for arc-parallel flow in the mantle wedge beneath Costa Rica and Nicaragua, *Nature*, *451*, 1094-1098, 10.1038/nature06550, 2008.
- \*Abt, D., and K. M. Fischer, Resolving three-dimensional anisotropic structure with shear-wave splitting tomography, *Geophys. J. Int.*, *173*, 859-889, 10.1111/j.1365-246X.2008.03757.x, 2008.
- MacKenzie, L. G., A. Abers, K. M. Fischer, E. M. Syracuse, J. M. Protti, V. Gonzalez, W. Strauch, Crustal Structure Along the Central American Volcanic Front, *Geochem. Geophys. Geosys.*, *9*, Q08S09, 10.1029/2008GC001991, 2008.
- Syracuse, E. M., G. A. Abers, K. M. Fischer, L. G. MacKenzie, C. A. Rychert, J. M. Protti, V. Gonzalez, W. Strauch, Seismic Tomography and Earthquake Locations in the Nicaraguan and Costa Rican Upper Mantle, *Geochem. Geophys. Geosys.*, *9*, Q07S08, 10.1029/2008GC001963, 2008.
- Harmon, N., P. Gerstoft, C. A. Rychert, G. A. Abers, \*M. Salas de la Cruz, and K. M. Fischer Phase velocities from seismic noise using beamforming and cross correlation in Costa Rica and Nicaragua, *Geophys. Res. Lett.*, *35*, L19303, 10.1029/2008GL035387, 2008.
- \*Rychert, C. A., S. Rondenay, and K. M. Fischer, P-to-S and S-to-P imaging of a sharp lithosphere-asthenosphere boundary beneath eastern North America, *J. Geophys. Res.*, *112*, B08314, 10.1029/2006JB004619, 2007.
- \*Rychert, C. A., K. M. Fischer, and S. Rondenay, A sharp lithosphere-asthenosphere boundary imaged beneath eastern North America, *Nature*, *436*, 542-545, 10.1038/nature03904, 2005.
- Fischer, K. M., \*A. Li, D. W. Forsyth, and S.-H. Hung, Imaging three-dimensional anisotropy with broadband seismometer arrays, *Seismic Earth: Array Analysis of Broadband Seismograms*, AGU Geophysical Monograph *187*, A. Levander and G. Nolet, eds., 99-106, 10.1029/157GM07, 2005.
- Rondenay, S., M. G. Bostock, and K. M. Fischer, Multichannel inversion of scattered teleseismic body waves: practical considerations and applicability, *Seismic Earth: Array Analysis of Broadband Seismograms*, AGU Geophysical Monograph *187*, A. Levander and G. Nolet, eds., 187-204, 10.1029/157GM12, 2005.
- \*Li, A., D. W. Forsyth, and K. M. Fischer, Rayleigh wave phase velocities and azimuthally anisotropic shear-wave structure beneath the Colorado Rocky Mountains, *The Rocky Mountain Region - An Evolving Lithosphere: Tectonics, Geochemistry, and Geophysics*, AGU Geophysical Monograph *154*, K. E. Karlstrom and G. R. Keller, eds., 385-401 10.1029/154GM29, 2005.

- Harmon, N., D. W. Forsyth, K. M. Fischer, and S. C. Webb, Variations in shear-wave splitting in young Pacific seafloor, *Geophys. Res. Lett.*, *31*, L15609, 10.1029/2004GL020495, 2004.
- Savage, M. K., K. M. Fischer, and \*C. E. Hall, Strain modelling, seismic anisotropy and coupling at strike-slip boundaries: Applications in New Zealand and the San Andreas Fault, *Vertical Coupling and Decoupling in the Lithosphere*, Geological Society of London, Special Publication, J. Grocott, K. McCaffrey, G. Taylor and B. Tikoff, eds., 10.1144/GSL.SP.2004.227.01.02, 2004.
- Butler, R., Lay, T., Creager, C., Earl, P., Fischer, K., Gaherty, J., Laske, G., Leith, B., Park, J., Ritzwoller, M., Tromp, J., and Wen, L., The Global Seismographic Network surpasses its design goals, *Eos Trans. AGU*, *85* (23), 225-232, 10.1029/2004EO230001, 2004.
- \*Rondenay S., and K. M. Fischer, Constraints on localized core-mantle boundary structure from multichannel, broadband *SKS* coda analysis, *J. Geophys. Res.*, *108*, 2537, 10.1029/2003JB002518, 2003.
- \*Weeraratne, D. S., D. W. Forsyth, and K. M. Fischer, A. A. Nyblade, Evidence for an upper mantle plume beneath the Tanzanian craton from Rayleigh wave tomography, *J. Geophys. Res.*, *108*, 2427, 10.1029/2002JB002273, 2003.
- \*Li, A., D. W. Forsyth, and K. M. Fischer, Shear wave structure and azimuthal anisotropy beneath eastern North America from Rayleigh wave tomography, *J. Geophys. Res.*, *108*, 2362, 10.1029/2002JB002259, 2003.
- Fisher, J. L., M. E. Wyssession, and K. M. Fischer, Small-scale lateral variations in *D'* attenuation and velocity structure, *Geophys. Res. Lett.*, *30*, 1435, 10.1029/2002GL016179, 2003.
- Fischer, K. M., Waning buoyancy in the crustal roots of old mountains, *Nature*, *417*, 933-936, 10.1038/nature00855, 2002.
- \*Li, A., D. W. Forsyth, and K. M. Fischer, Evidence for shallow isostatic compensation of the southern Rocky Mountains from Rayleigh wave tomography, *Geology*, *30*, 683-686, 2002.
- \*Li, A., K. M. Fischer, S. van der Lee, and M. E. Wyssession. Crust and upper mantle discontinuity structure beneath eastern North America, *J. Geophys. Res.*, *107*, 10.1029/2001JB000190, 2002.
- \*Fouch, M. J., K. M. Fischer, and M. E. Wyssession, Lowermost mantle anisotropy beneath the Pacific: Imaging the source of the Hawaiian plume, *Earth Planet. Sci. Lett.*, *190*, 167-180, 10.1016/S0012-821X(01)00380-6, 2001.
- Smith, G. P., D. A. Wiens, K. Fischer, L. Dorman, S. Webb, and J. Hildebrand, A complex pattern of mantle flow in the Lau backarc, *Science*, *292*, 713-716, 10.1126/science.1058763, 2001.
- Wyssession, M. E., K. M. Fischer, G. I. Al-eqabi, P. J. Shore, and I. Gurari, Using MOMA broadband array ScS-S data to image smaller-scale structures at the base of the mantle, *Geophys. Res. Lett.*, *28*, 867-870, 10.1029/2000GL008485, 2001.
- \*Hall, C. E., K. M. Fischer, E. M. Parmentier, and D. K. Blackman, The influence of plate motions on three dimensional back-arc mantle flow and shear wave splitting, *J. Geophys. Res.*, *105*, 28,009-28,033, 10.1029/2000JB900297, 2000.
- Fischer, K. M., E. M. Parmentier, \*A. R. Stine, and \*E. R. Wolf, Modeling anisotropy and plate-driven flow in the Tonga subduction zone back-arc, *J. Geophys. Res.*, *105*, 16,181-16,191, 10.1029/1999JB900441, 2000.
- \*Fouch, M. J., K. M. Fischer, E. M. Parmentier, M. E. Wyssession, and T. J. Clarke, Shear-wave splitting, continental keels, and patterns of mantle flow, *J. Geophys. Res.*, *105*, 6255-6275, 10.1029/1999JB900372, 2000.

- Wysession, M. E., A. Langenhorst, \*M. J. Fouch, K. M. Fischer, G. I. Al-Eqabi, P. J. Shore, and T. J. Clarke, Lateral variations in compressional/shear velocities at the base of the mantle, *Science*, 284, 120-125, 10.1126/science.284.5411.120, 1999.
- \*Li, A., K. M. Fischer, M. E. Wysession, and T. J. Clarke, Mantle discontinuities and temperature under the North American continental keel, *Nature*, 395, 160-163, 10.1038/25972, 1998.
- \*Fouch, M. J., and K. M. Fischer, Shear wave anisotropy in the Mariana subduction zone, *Geophys. Res. Lett.*, 25, 1221-1224, 10.1029/98GL00650, 1998.
- Fischer, K. M., \*M. J. Fouch, D. A. Wiens, and \*M. S. Boettcher, Anisotropy and flow in Pacific subduction zone back-arcs, *Pure appl. geophys.*, 151, 463-475, 10.1007/s000240050123, 1998.
- Fischer, K. M., and D. A. Wiens, The depth distribution of mantle anisotropy beneath the Tonga subduction zone, *Earth Planet. Sci. Lett.*, 142, 253-260, 10.1016/0012-821X(96)00084-2, 1996.
- \*Fouch, M. J., and K. M. Fischer, Mantle anisotropy beneath Northwest Pacific subduction zones, *J. Geophys. Res.*, 101, 15,987-16,002, 10.1029/96JB00881, 1996.
- Wysession, M. E., K. M. Fischer, T. J. Clarke, G. I. Al-eqabi, M. J. Fouch, P. J. Shore, R. W. Valenzuela, \*A. Li, and \*J. M. Zaslow, Slicing into the Earth, *Eos Trans. AGU*, 77(48), 477-482, 10.1029/96EO00317, 1996.
- \*Yang, X., K. M. Fischer, and G. A. Abers, Seismic anisotropy beneath the Shumagin Islands segment of the Aleutian-Alaska subduction zone, *J. Geophys. Res.*, 100, 18,165-18,177, 10.1029/95JB01425, 1995.
- Fischer, K. M., \*L. A. Salvati, S. E. Hough, \*E. Gonzalez, \*C. E. Nelsen, and \*E. G. Roth, Sediment-induced amplification in the Northeastern United States: A case study in Providence, Rhode Island, *Bull. Seism. Soc. Am.*, 85, 1388-1397, 1995.
- Fischer, K. M., and \*X. Yang, Anisotropy in Kuril-Kamchatka subduction zone structure. *Geophys. Res. Lett.*, 21, 5-8, 10.1029/93GL03161, 1994.
- \*Yang, X., and K. M. Fischer, Constraints on North Atlantic upper mantle anisotropy from *S* and *SS* phases, *Geophys. Res. Lett.*, 21, 309-312, 10.1029/93GL03261, 1994.
- Fischer, K. M., and S. E. Hough, Site response in Providence, Rhode Island: Constraints from ambient noise measurements, *Seis. Res. Lett.*, 63, 525-532, 1992.
- Fischer, K. M., K. C. Creager and T. H. Jordan, Mapping the Tonga slab, *J. Geophys. Res.*, 96, 14,403-14,427, 10.1029/90JB02703, 1991.
- Fischer, K. M., and T. H. Jordan, Seismic strain rate and deep slab deformation in Tonga, *J. Geophys. Res.*, 96, 14,429-14,444, 10.1029/91JB00153, 1991.
- McNutt, M. K., K. M. Fischer, S. Kruse and J. Natland, The origin of the Marquesas Fracture Zone Ridge and its implications for the nature of hot spots, *Earth Planet. Sci. Lett.*, 91, 381-393, 10.1016/0012-821X(89)90012-5, 1989.
- Fischer, K. M., T. H. Jordan, and K. C. Creager, Seismic constraints on the morphology of deep slabs, *J. Geophys. Res.*, 93, 4773-4783, 10.1029/JB093iB05p04773, 1988.
- McNutt, M. K., and K. M. Fischer, The South Pacific superswell, *Seamounts, Islands and Atolls*, B. H. Keating, P. Fryer, R. Batiza, and G. W. Boehlert, eds., Geophysical Monograph 43, American Geophysical Union, Washington, D.C., 10.1029/GM043p0025, 1987.
- Fischer, K. M., and G. M. Purdy, Seismic amplitude modeling and the shallow crustal structure of the East Pacific Rise at 12°N, *J. Geophys. Res.*, 91, 14,006-14,014, 10.1029/JB091iB14p14006, 1986.

- Fischer, K. M., M. K. McNutt and L. Shure, Thermal and mechanical constraints on the lithosphere beneath the Marquesas swell, *Nature*, 322, 733-736, 10.1038/322733a0, 1986.
- Fischer, K. M., and W. R. McCann, Seismic velocity modeling and earthquake relocation in the northeast Caribbean, *Bull. Seis. Soc. Amer.*, 74, 1249-1262, 1984.

### **Selected Non-refereed Publications**

- Arrowsmith, J R., E. E. Brodsky, C. M. Cooper, J. L. Elliott, D. Fee, K. M. Fischer, W. C. Hammond, P. La Femina, V. Lekić, H. Wang, and L. L. Worthington, Recommendations for Enabling Earth Science Through NSF's Geophysical Facility Portfolio Review of EAR Seismology and Geodesy Instrumentation, Report to the US National Science Foundation, April 2021.
- Williams, M.L., K.M. Fischer, J.T. Freymueller, B. Tikoff, A.M. Trehu, and others, Unlocking the Secrets of the North American Continent: An EarthScope Science Plan for 2010-2020, National Science Foundation, February, 2010, 78 pp.
- Hauri, E., P. van Keken, K. Fischer, C. Manning, G. Gaetani, MARGINS Theoretical and Experimental Institute: Volatiles in the Subduction Factory, MARGINS Newsletter, 24, Summer, 2010.
- Abers, G. A., K. M. Fischer, M. Protti, W. Strauch, The TUCAN broadband seismometer experiment, *IRIS Newsletter*, 15, 10-12, 2007.
- Bilek, S., G. Abers, G. Reyes, K.M. Fischer, W. Strauch, V. Gonzalez Salas, The October 2004 Mw=7.1 Nicaragua earthquake: Rupture process, aftershock locations, and the confluence of SEIZE and SubFac goals, MARGINS Newsletter, 15, Fall, 2005.
- Sinha, A.K., R. D. Hatcher, K. M. Fischer, A. M. Forte, J. E. Ebel, M. J. Pavich, D. Seeber, W. A. Thomas, L. D. Brown, A. Goldstein, L. Gunderson, J. F. Read, *A community vision of Earthscope Science Frontiers in Eastern North America*, National Science Foundation, 2005.
- Fischer, K. M., Flow and fabric deep down, *Nature*, 415, 745-748, 2002.
- Fischer, K. M., R. D. van der Hilst, A seismic look under the continents, *Science*, 285, 1365-1366, 1999.
- Fischer, K. M., M. E. Wyssession, T. J. Clarke, M. J. Fouch, G. I. Al-eqabi, P. J. Shore, R. W. Valenzuela, A. Li, J. M. Zaslów, The 1995-1996 Missouri to Massachusetts Broadband Seismometer Deployment, *IRIS Newsletter*, 15, 6-9, 1996.

### **Conference Presentations**

\* = supervised student or postdoc

#### **2025:**

- \*Brown, S., \*N. Valencia, \*K. M Fischer, Detecting Ice-Sheet and Subglacial Variations in Antarctica Using Ps Receiver Functions, Abstract S33C-0267 presented at the 2025 AGU Fall Meeting, 15-19 Dec., 2025.
- \*Wen, J., K. M Fischer, G. A. Abers, K. van Wijk, J. D. Eccles, Z. Guo, T. Yang, J. P. Morgan, H. Chevallier, M. Soulsby, Z. Wu, J. Lin, M. K. Savage, F. Illsley-Kemp, Constraining Interactions between Partial Melt and the Lithosphere beneath the Auckland Volcanic Field and the North Island of New Zealand with Sp Receiver Functions, Abstract V41C-0076C presented at the 2025 AGU Fall Meeting, 15-19 Dec., 2025.
- \*Krueger, H. E., C. A. Dalton, K. M. Fischer, J. B. Russell, Structure of the Antarctic Uppermost Mantle: Regional-Scale Rayleigh Phase Velocity and Attenuation, Abstract DI43B-0028 presented at the 2025 AGU Fall Meeting, 15-19 Dec., 2025.

Huang, Y., C. A. Dalton, K. M. Fischer, Layered Cratonic Lithosphere: From Regional Scales to Global Perspectives, Abstract T32A-09 presented at the 2025 AGU Fall Meeting, 15-19 Dec., 2025.

Bernard, R. E., K. M. Fischer, G. Hirth, A. E. Saal, S. Mallick, Variations of Olivine CPO in Mantle Xenoliths from South Victoria Land, West Antarctic Rift System, with Implications for Seismic Anisotropy, Abstract DI44A-03 presented at the 2025 AGU Fall Meeting, 15-19 Dec., 2025.

Golos, E. M., K. M. Fischer, Z. Eilon, Seismic Evidence for Melt Infiltration in the Lower Lithosphere in the Southwestern United States, Abstract T43A-06 presented at the 2025 AGU Fall Meeting, 15-19 Dec., 2025.

Additional 2025 abstracts: Two at the AGU Fall Meeting, three at the 2025 Interior of the Earth Gordon Research Conference, one at the Inge Lehmann Symposium at the University of Oslo, one at the European Geosciences Union General Assembly, and five at the 2025 Geoscience Society of New Zealand Annual Conference.

**1983-2024:**

~379 abstracts from meetings of the American Geophysical Union, the European Geoscience Union, Gordon Research Conferences, SAGE/GAGE, the Incorporated Research Institutions in Seismology, the Seismological Society of America, and other organizations.