

# Maureen D. Long

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## Professor of Geology and Geophysics, Yale University

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### Education

- 2000-2006            Massachusetts Institute of Technology (MIT), Cambridge, MA  
Ph.D. in Geophysics, June 2006.
- 1996-2000            Rensselaer Polytechnic Institute (RPI), Troy, NY  
B.S. *summa cum laude*, May 2000 (Geology with Physics minor).

### Appointments

- 2017-present        Professor, Department of Geology and Geophysics, Yale University  
2016-2017            Associate Professor, Department of Geology and Geophysics, Yale  
2009-2015            Assistant Professor, Department of Geology and Geophysics, Yale  
2009-2012            Visiting Investigator, Department of Terrestrial Magnetism (DTM), Carnegie  
Institution for Science
- 2006-2008            Postdoctoral associate/fellow, DTM, Carnegie  
2000-2006            Graduate research and teaching assistant, MIT  
1998-2000            Undergraduate research assistant, RPI Undergraduate Research Program  
1998, 1999            Summer undergraduate research intern, University of Minnesota

### Research Interests

- Observational seismology and mantle dynamics; imaging of seismic anisotropy
- Subduction zone dynamics and processes; subduction and the mantle flow field
- Structure and dynamics of the lowermost mantle and the core-mantle boundary region
- Structure, evolution, and deformation of the continental lithosphere

### Honors and Recognition

- 2016                    James B. Macelwane Medal, American Geophysical Union (AGU)  
2016                    Fellow, American Geophysical Union  
2016-2017            EarthScope Distinguished Speaker  
2015                    Kavli Frontiers of Science Fellow, National Academy of Sciences  
2012                    NSF Faculty Early Career Development (CAREER) Award  
2012                    Outstanding Reviewer, Geophysical Journal International  
2011-2013            Alfred P. Sloan Research Fellowship (Physics)  
2010                    Editors' Citation for Excellence in Refereeing, JGR-Solid Earth  
2007-2008            Carnegie Postdoctoral Fellowship, DTM, Carnegie  
2004                    Award for Excellence in Teaching, EAPS Department, MIT  
2003                    Outstanding Student Paper Award, Seismology Section, AGU Fall Meeting  
2000-2003            NSF Graduate Research Fellowship  
2000                    Joseph L. Rosenholtz Prize for outstanding work in earth sciences, RPI

## Publications

(\*denotes graduate advisee; \*\*denotes undergraduate advisee; ^denotes postdoctoral advisee)

Citation statistics from Google Scholar: Total citations = 2774; h-index = 28; i10-index: 53.

### I. Peer-Reviewed Papers

72. Bercovici, D., Mulyukova, E., **Long, M. D.**, 2018. A simple toy model for coupled retreat and detachment of subducting slabs. *Journal of Geodynamics*, in press, doi:10.1016/j.jog.2018.03.002.
71. Bishop, B. T., Beck, S. L., Zandt, G., Wagner, L. S., **Long, M. D.**, Tavera, H., 2018. Foreland uplift during flat subduction: Insights from the Peruvian Andes and Fitzcarrald Arch. *Tectonophysics*, 731-732, 73-84, doi:10.1016/j.tecto.2018.03.005.
70. Levin, V., **Long, M. D.**, Skryzalin, P., Li, Y., López, I.\*\*, 2018. Seismic evidence for a recently formed mantle upwelling beneath New England. *Geology*, 46, 87-90.
69. Aragon, J. C.\*\*, **Long, M. D.**, Benoit, M. H., 2017. Lateral variations in SKS splitting across the MAGIC array, central Appalachians. *Geochemistry, Geophysics, Geosystems*, 18, 4136-4155, doi:10.1029/2017GC007169.
68. **Long, M. D.**, Ford, H. A.^, Abrahams, L.\*\*, Wirth, E. A., 2017. The seismic signature of lithospheric deformation beneath eastern North America due to Grenville and Appalachian orogenesis. *Lithosphere*, 9, 987-1001, doi:10.1130/L.660.1.
67. Creasy, N.\*, **Long, M. D.**, Ford, H. A.^, 2017. Deformation of the lowermost mantle beneath Australia from observations and models of seismic anisotropy. *Journal of Geophysical Research*, 122, 5243-5267, doi:10.1029/2016JB013901.
66. Bishop, B. T., Beck, S. L., Zandt, G., Wagner, L. S., **Long, M. D.**, Antonijevic, S. K., Kumar, A., Tavera, H., 2017. Causes and consequences of flat slab subduction in southern Peru. *Geosphere*, 13, 1392-1407. (Subduction Top to Bottom 2 special issue)
65. Deng, J.\*, **Long, M. D.**, Creasy, N.\*, Wagner, L. S., Beck, S. L., Zandt, G., Tavera, H., 2017. Lowermost mantle anisotropy near the eastern edge of the Pacific LLSVP: Constraints from SKS-SKKS splitting intensity measurements. *Geophysical Journal International*, 210, 774-786.
64. Scire, A., Zandt, G., Beck, S. **Long, M. D.**, Wagner, L., 2017. The deforming Nazca slab in the mantle transition zone and lower mantle: Constraints from teleseismic tomography on the deeply subducted slab between 6° and 32°S. *Geosphere*, 13, 665-680. (Subduction Top to Bottom 2 special issue)
63. Lynner, C.\*, **Long, M. D.**, Thissen, C. J., Paczkowski, K., Montési, L. G. J., 2017. Evaluating geodynamic models for sub-slab anisotropy: Effects of olivine fabric type. *Geosphere*, 13, 247-259. (Subduction Top to Bottom 2 special issue)
62. **Long, M. D.**, 2017. The Field Experiences for Science Teachers (FEST) Project: Involving high school science teachers in field seismology. *Seismological Research Letters*, 88, 421-429.
61. Wirth, E. A.\*, **Long, M. D.**, Moriarty, J. M., 2017. A Markov chain Monte Carlo with Gibbs sampling approach to the forward modeling of anisotropic receiver functions. *Geophysical Journal International*, 208, 10-23.

60. **Long, M. D.**, 2016. The Cascadia Paradox: Mantle flow and slab fragmentation in the Cascadia subduction system. *Journal of Geodynamics*, 102, 151-170.
59. Antonijevic, S. K., Wagner, L. S., Beck, S. L., **Long, M. D.**, Zandt, G., Tavera, H., 2016. Effects of change in slab geometry on the mantle flow and slab fabric in southern Peru, *Journal of Geophysical Research*, 121, doi:10.1029/2016JB013064.
58. Ford, H. A.<sup>^</sup>, **Long, M. D.**, Wirth, E. A., 2016. Mid-lithospheric discontinuities and complex anisotropic layering in the mantle lithosphere beneath the Wyoming and Superior Provinces. *Journal of Geophysical Research*, 121, 6675-6697, doi:10.1029/2016JB012978.
57. **Long, M. D.**, Biryol, C. B., Eakin, C. M., Beck, S. L., Wagner, L. S., Zandt, G., Minaya, E., Tavera, H., 2016. Overriding plate, mantle wedge, slab, and sub-slab contributions to seismic anisotropy beneath the northern Central Andean Plateau. *Geochemistry, Geophysics, Geosystems*, 17, 2556-2575, doi:10.1029/2016GC006316.
56. Kumar, A., Wagner, L. S., Beck, S. L., **Long, M. D.**, Zandt, G., Young, B., Tavera, H., Minaya, E., 2016. Geometry and state of stress in the central and southern Peruvian flat slab. *Earth and Planetary Science Letters*, 441, 71-80.
55. Eakin, C. M.\* , **Long, M. D.**, Scire, A., Beck, S. L., Wagner, L. S., Zandt, G., Tavera, H., 2016. Internal deformation of the subducted Nazca slab inferred from seismic anisotropy. *Nature Geoscience*, 9, 56-59.
54. **Long, M. D.**, Jackson, K. G.\*\* , McNamara, J. F.\*\* , 2016. SKS splitting beneath Transportable Array stations in eastern North America and the signature of past lithospheric deformation. *Geochemistry, Geophysics, Geosystems*, 17, 2-15, doi:10.1029/2015GC006088.
53. Scire, A., Zandt, G., Beck, S. L., **Long, M. D.**, Wagner, L. S., Minaya, E., Tavera, H., 2016. Imaging the transition from flat to normal subduction: Variations in the structure of the Nazca slab and upper mantle under southern Peru and northwestern Bolivia. *Geophysical Journal International*, 204, 457-479.
52. **Long, M. D.**, Lynner, C.\* , 2015. Seismic anisotropy in the lowermost mantle near the Perm Anomaly. *Geophysical Research Letters*, 42, 7073-7080, doi:10.1029/2015GL065506.
51. Antonijevic, S. K., Wagner, L. S., Kumar, A., Beck, S. L., **Long, M. D.**, Zandt, G., Tavera, H., Condori, C., 2015. The role of ridges in the formation and longevity of flat slabs. *Nature*, 532, 212-215.
50. Ford, H. A.<sup>^</sup>, **Long, M. D.**, 2015. A regional test of global models for flow, rheology, and seismic anisotropy at the base of the mantle. *Physics of the Earth and Planetary Interiors*, 245, 71-75.
49. Mohiuddin, A.\* , **Long, M. D.**, Lynner, C.\* , 2015. Mid-mantle seismic anisotropy beneath Southwestern Pacific subduction systems and implications for mid-mantle deformation. *Physics of the Earth and Planetary Interiors*, 245, 1-14.
48. Ford, H. A.<sup>^</sup>, **Long, M. D.**, He, X.<sup>^</sup>, Lynner, C.\* , 2015. Lowermost mantle flow along the eastern edge of the African Large Low Shear Velocity Province. *Earth and Planetary Science Letters*, 420, 12-22.
47. Lynner, C.\* , **Long, M. D.**, 2015. Heterogeneous seismic anisotropy in the transition zone and uppermost lower mantle beneath Japan, Izu-Bonin, and South America. *Geophysical Journal International*, 201, 1545-1552.

46. Eakin, C. M.\*, **Long, M. D.**, Wagner, L. S., Beck, S. L., Tavera, H., 2015. Upper mantle anisotropy beneath Peru from SKS splitting: Constraints on flat slab dynamics and interaction with the Nazca Ridge. *Earth and Planetary Science Letters*, 412, 152-162.
45. Paczkowski, K.\*, Thissen, C. J., **Long, M. D.**, Montési, L. G. J., 2014. Deflection of mantle flow beneath subducting slabs and the origin of sub-slab anisotropy. *Geophysical Research Letters*, 41, 6734-6742, doi:10.1002/2014GL060914.
44. Paczkowski, K.\*, Montési, L. G. J., **Long, M. D.**, Thissen, C. J., 2014. Three-dimensional flow in the sub-slab mantle. *Geochemistry, Geophysics, Geosystems*, 15, 3989-4008, doi:10.1002/2014GC005441.
43. Lynner, C.\*, **Long, M. D.**, 2014. Testing models of sub-slab anisotropy using a global compilation of source-side shear wave splitting data. *Journal of Geophysical Research*, 119, 7226-7244, doi:10.1002/2014JB010983.
42. Bercovici, D., **Long, M. D.**, 2014. Slab rollback instability and supercontinent dispersal. *Geophysical Research Letters*, 41, 6659-6666, doi:10.1002/2014GL061251.
41. Wirth, E. A.\*, **Long, M. D.**, 2014. A contrast in anisotropy across mid-lithospheric discontinuities beneath the central United States - A relic of craton formation. *Geology*, 42, 851-854.
40. Lynner, C.\*, **Long, M. D.**, 2014. Sub-slab anisotropy beneath the Sumatra and circum-Pacific subduction zones from source-side shear wave splitting observations. *Geochemistry, Geophysics, Geosystems*, 15, 2262-2281, doi:10.002/2014GC005239.
39. Lynner, C.\*, **Long, M. D.**, 2014. Lowermost mantle anisotropy and deformation along the boundary of the African LLSVP. *Geophysical Research Letters*, 41, 3447-3454, doi:10.1002/2014GL059875.
38. Eakin, C. M.\*, **Long, M. D.**, Beck, S. L., Wagner, L. S., Tavera, H., Condori, C., 2014. Response of the mantle to flat slab evolution: Insights from local *S* splitting beneath Peru. *Geophysical Research Letters*, 41, 3438-3446, doi:10.1002/2014GL059943.
37. Benoit, M. H., **Long, M. D.**, King, S. D., 2013. Anomalously thin transition zone and apparently isotropic upper mantle beneath Bermuda: Evidence for upwelling. *Geochemistry, Geophysics, Geosystems*, 14, 4282-4291, doi:10.1002/ggge.20277.
36. Wagner, L. S., **Long, M. D.**, 2013. Distinctive upper mantle anisotropy beneath the High Lava Plains and Eastern Snake River Plain, Pacific Northwest, USA. *Geochemistry, Geophysics, Geosystems*, 14, 4647-4666, doi:10.1002/ggge.20275.
35. Eakin, C. M.\*, **Long, M. D.**, 2013. Complex anisotropy beneath the Peruvian flat-slab from frequency-dependent, multiple-phase shear wave splitting analysis. *Journal of Geophysical Research*, 118, 4794-4813, doi:10.1002/jgrb.50349.
34. Wagner, L. S., Fouch, M. J., James, D. E., **Long, M. D.**, 2013. The role of hydrous phases in the formation of trench parallel anisotropy: Evidence from Rayleigh waves in Cascadia. *Geophysical Research Letters*, 40, 2642-2646, doi:10.1002/grl.50525.
33. **Long, M. D.**, 2013. Constraints on subduction geodynamics from seismic anisotropy. *Reviews of Geophysics*, 51, 76-112, doi:10.1002/rog.20008.

32. McCormack, K.\*\*\*, Wirth, E. A.\*, **Long, M. D.**, 2013. B-type olivine fabric and mantle wedge serpentinization beneath the Ryukyu arc. *Geophysical Research Letters*, 40, 1697-1702, doi:10.1002/grl.50369.
31. **Long, M. D.**, Wirth, E. A.\*, 2013. Mantle flow in subduction systems: The mantle wedge flow field and implications for wedge processes. *Journal of Geophysical Research*, 118, 583-606, doi:10.1002/jgrb.50063.
30. Lynner, C.\*, **Long, M. D.**, 2013. Sub-slab seismic anisotropy and mantle flow beneath the Caribbean and Scotia subduction zones: Effects of slab morphology and kinematics. *Earth and Planetary Science Letters*, 361, 367-378.
29. **Long, M. D.**, Till, C., Druken, K. A., Carlson, R. W., Wagner, L. S., Fouch, M. J., James, D. E., Grove, T. L., Schmerr, N., Kincaid, C., 2012. Mantle dynamics beneath the Pacific Northwest and the generation of voluminous back-arc volcanism. *Geochemistry, Geophysics, Geosystems*, 13, Q0AN01, doi:10.1029/2012GC004189.
28. Wirth, E. A.\*, **Long, M. D.**, 2012. Multiple layers of seismic anisotropy and a low-velocity region in the mantle wedge beneath Japan: Evidence from teleseismic receiver functions. *Geochemistry, Geophysics, Geosystems*, 13, Q08005, doi:10.1029/2012GC004180.
27. Wagner, L. S., **Long, M. D.**, Johnston, M. D.\*\*\*, Benoit, M. H., 2012. Lithospheric and asthenospheric contributions to shear-wave splitting observations in the southeastern United States. *Earth and Planetary Science Letters*, 341-344, 128-138.
26. Lynner, C.\*, **Long, M. D.**, 2012. Evaluating contributions to SK(K)S splitting from lower mantle anisotropy: A case study from station DBIC, Côte d'Ivoire. *Bulletin of the Seismological Society of America*, 102, 1030-1040.
25. Hanna, J.\*, **Long, M. D.**, 2012. SKS splitting beneath Alaska: Regional variability and implications for subduction processes at a slab edge. *Tectonophysics*, 530-531, 272-285.
24. Becker, T. W., Lebedev, S., **Long, M. D.**, 2012. On the relationship between azimuthal anisotropy from shear wave splitting and surface wave tomography. *Journal of Geophysical Research*, 117, B01306, doi:10.1029/2011JB008705.
23. He, X.^, **Long, M. D.**, 2011. Lowermost mantle anisotropy beneath the northwestern Pacific: Evidence from PcS, ScS, SKS, and SKKS phases. *Geochemistry, Geophysics, Geosystems*, 12, Q12012, doi:10.1029/2011GC003779.
22. Johnston, M. D.\*\*\*, **Long, M. D.**, Silver, P. G., 2011. State of stress and age offsets at oceanic fracture zones and implications for the initiation of subduction. *Tectonophysics*, 512, 47-59.
21. Druken, K. A., **Long, M. D.**, Kincaid, C., 2011. Patterns in seismic anisotropy driven by slab rollback beneath the High Lava Plains. *Geophysical Research Letters*, 38, L13310, doi:10.1029/2011GL047541.
20. Silver, P. G., **Long, M. D.**, 2011. The non-commutivity of shear wave splitting operators at low frequencies and implications for anisotropy tomography. *Geophysical Journal International*, 184, 1415-1427.
19. Foley, B. J.\*, **Long, M. D.**, 2011. Upper and mid-mantle anisotropy beneath the Tonga slab. *Geophysical Research Letters*, 38, L02303, doi:10.1029/2010GL046021.

18. **Long, M. D.**, Benoit, M. H., Chapman, M. C., King, S. D., 2010. Upper mantle anisotropy and transition zone thickness beneath southeastern North America and implications for mantle dynamics. *Geochemistry, Geophysics, Geosystems*, 11, Q10012, doi:10.1029/2010GC003247.
17. **Long, M. D.**, 2010. Frequency-dependent shear wave splitting and heterogeneous anisotropic structure beneath the Gulf of California region. *Physics of the Earth and Planetary Interiors*, 182, 59-72.
16. **Long, M. D.**, Becker, T. W., 2010. Mantle dynamics and seismic anisotropy. *Earth and Planetary Science Letters*, 297, 341-354 (Frontiers article).
15. Wirth, E.\*, **Long, M. D.**, 2010. Frequency-dependent shear wave splitting beneath the Japan and Izu-Bonin subduction zones. *Physics of the Earth and Planetary Interiors*, 181, 141-154.
14. **Long, M. D.**, Gao, H., Klaus, A.\*\*, Wagner, L. S., Fouch, M. J., James, D. E., Humphreys, E. D., 2009. Shear wave splitting and the pattern of mantle flow beneath eastern Oregon. *Earth and Planetary Science Letters*, 288, 359-369.
13. **Long, M. D.**, Silver, P. G., 2009. Mantle flow in subduction systems: The sub-slab flow field and implications for mantle dynamics. *Journal of Geophysical Research*, 114, B10312, doi:10.1029/2008JB006200.
12. **Long, M. D.**, Silver, P. G., 2009. Shear wave splitting and mantle anisotropy: Measurements, interpretations, and new directions. *Surveys in Geophysics*, 30, 407-461.
11. **Long, M. D.**, 2009. Complex anisotropy in D" beneath the eastern Pacific from SKS-SKKS splitting discrepancies. *Earth and Planetary Science Letters*, 283, 181-189.
10. **Long, M. D.**, Silver, P. G., 2008. The subduction zone flow field from seismic anisotropy: A global view. *Science*, 319, 315-318.
9. Kneller, E. A., **Long, M. D.**, van Keken, P. E., 2008. Olivine fabric transitions and shear-wave anisotropy in the Ryukyu subduction system. *Earth and Planetary Science Letters*, 268, 268-282.
8. **Long, M. D.**, de Hoop, M. V., van der Hilst, R. D., 2008. Wave-equation shear wave splitting tomography. *Geophysical Journal International*, 172, 311-330.
7. **Long, M. D.**, Hager, B. H., de Hoop, M. V., van der Hilst, R. D., 2007. Two-dimensional modeling of subduction zone anisotropy with application to southwestern Japan. *Geophysical Journal International*, 170, 839-856.
6. Lev, E., **Long, M. D.**, van der Hilst, R. D., 2006. Seismic anisotropy in eastern Tibet from shear-wave splitting reveals changes in lithospheric deformation. *Earth and Planetary Science Letters*, 251, 293-304.
5. **Long, M. D.**, Xiao, X., Jiang, Z., Evans, B., Karato, S.-i., 2006. Lattice preferred orientation in deformed polycrystalline (Mg,Fe)O and implications for seismic anisotropy in D". *Physics of the Earth and Planetary Interiors*, 156, 75-88.
4. **Long, M. D.**, van der Hilst, R. D., 2006. Shear wave splitting from local events beneath the Ryukyu arc: Trench-parallel anisotropy in the mantle wedge. *Physics of the Earth and Planetary Interiors*, 155, 300-312.

3. **Long, M. D.**, van der Hilst, R. D., 2005. Estimating shear wave splitting parameters from broadband recordings in Japan: A comparison of three methods. *Bulletin of the Seismological Society of America*, 95, 1346-1358.
2. **Long, M. D.**, van der Hilst, R. D., 2005. Upper mantle anisotropy beneath Japan from shear wave splitting. *Physics of the Earth and Planetary Interiors*, 151, 206-222.
1. McCaffrey, R., **Long, M. D.**, Goldfinger, C., Zwick, P. C., Nabelek, J. L., Johnson, C. K., Smith, C., 2000. Rotation and plate locking at the southern Cascadia subduction zone, *Geophysical Research Letters*, 27, 3117-3120.

## II. Manuscripts in Review/Revision

- R8. Wolf, J.\*\*\*, Creasy, N.\*, **Long, M. D.**, Thomas, C., 2018. Seismic anisotropy in the lowermost mantle beneath the Iceland hotspot and implications for mantle flow. *Earth and Planetary Science Letters*, revised manuscript in review.
- R7. Creasy, N.\*, Pisconti, A., **Long, M. D.**, Thomas, C., Wookey, J., 2018. Constraining lowermost mantle anisotropy with body wave data sets: A synthetic modeling study. *Geophysical Journal International*, in revision.
- R6. Bar, N.\*, **Long, M. D.**, Wagner, L. S., Beck, S. L., Zandt, G., Tavera, H., 2018. Receiver function analysis reveals layered anisotropy in the crust and upper mantle beneath Peru and Bolivia. *Tectonophysics*, in revision.
- R5. Mondal, P.\*, **Long, M. D.**, 2018. A model space search approach to finite-frequency SKS splitting intensity tomography in a reduced parameter space. *Geophysical Journal International*, in review.
- R4. Byrnes, J., Bezada, M., **Long, M. D.**, Benoit, M. H., 2018. Thin lithosphere beneath the central Appalachian Mountains: Constraints from seismic attenuation beneath the MAGIC array. *Earth and Planetary Science Letters*, in review.
- R3. Byrnes, J., Bezada, M., **Long, M. D.**, Benoit, M. H., 2018. On the measurement of apparent attenuation of teleseismic P waves with application to the MAGIC array. *MethodsX*, in review.
- R2. **Long, M. D.**, Benoit, M. H., Aragon, J. C.\*\*\*, King, S. D., 2018. Seismic imaging reveals the elusive Grenville deformation front beneath Ohio and West Virginia. *Geology*, in review.
- R1. Evans, R. L., Benoit, M. H., Elsenbeck, J., **Long, M. D.**, Ford, H. A., Zhu, J., Garcia, X., 2018. Thin lithosphere beneath the central Appalachian Mountains: A combined seismic and magnetotelluric study. *Earth and Planetary Science Letters*, in review.

## III. Manuscripts in Preparation

- P5. Servali, A.\*, **Long, M. D.**, Park, J., Benoit, M. H., Aragon, J. C.\*\*\*, 2018. Love-to-Rayleigh wave scattering across the Eastern North American Margin. In preparation for *Tectonophysics*.
- P4. Tesoniero, A.^, Leng, K., **Long, M. D.**, Nissen-Meyer, T., 2018. Finite-frequency sensitivity of SK(K)S phases to lowermost mantle anisotropy: Insights from global wavefield simulations using AxiSEM3D. In preparation for *Geophysical Journal International*.

- P3. Arveson, S. M.\*, **Long, M. D.**, Wagner, L. S., Beck, S. L., Tavera, H., 2018. A search for ScSp phases beneath Peru and implications for the geometry of the Peruvian flat slab. In preparation for *Bulletin of the Seismological Society of America*.
- P2. Benoit, M. H., Aragon, J. C.\*\*, **Long, M. D.**, King, S. D., 2018. Crustal thickness and gravity variations across the central Appalachians and implications for crustal density and isostasy. In preparation for *Geophysical Research Letters*.
- P1. Reiss, M. C.^, **Long, M. D.**, 2018. Lower mantle structure beneath Africa: Constraints from differential splitting and travel time delays of SK(K)S phases. In preparation for *Journal of Geophysical Research*.

#### IV. Other Contributions (non-peer reviewed)

- O10. **Long, M. D.**, 2017. Review of Geophysical Data Analysis: Discrete Inverse Theory (Matlab Edition), Third Edition, by William Menke. *American Mineralogist*, 102, 321. (Book review)
- O9. **Long, M. D.**, 2016. Hooper, Long, Nishimura, Sluijs, and Villarini receive 2016 James B. Macelwane medals (Response to citation), *Eos*, 97, doi:10.1029/2016EO064061.
- O8. Constable, C. G., Masters, T. G., Buffet, B., Day, J. M. D., Hirschmann, M., Karato, S.-i., Kellogg, L., **Long, M. D.**, Mao, W., 2016. Cooperative Studies of the Earth's Deep Interior: Understanding the origin and evolution of our planet through interdisciplinary research. Report to the National Science Foundation, available at [csedi.org/2016\\_Report](http://csedi.org/2016_Report).
- O7. **Long, M. D.**, 2015. How mountains get made. *Science*, 349, 687-688. (Perspectives article)
- O6. Bécel, A., Benoit, M. H., **Long, M. D.**, Wagner, L. S., 2015. Eastern North American Margin (ENAM) Community Seismic Experiment (CSE) Broadband OBS recovery, *R/V Endeavor*, Cruise Report EN-552.
- O5. **Long, M. D.**, Levander, A., Shearer, P. M., 2014. An introduction to the special issue of Earth and Planetary Science Letters on USArray science. *Earth and Planetary Science Letters*, 402, 1-5, doi:10.1016/j.epsl.2014.06.016.
- O4. **Long, M. D.**, Levin, V., 2014. USArray reaches the East Coast. *InSights, the EarthScope Newsletter*, Winter 2014, pp. 1-2.
- O3. **Long, M. D.**, 2010. How are Earth's internal boundaries affected by dynamics, temperature, and composition? In: Facilitating New Discoveries in Seismology and Exploring the Earth: The Next Decade, IRIS Core Proposal, Vol. II, pp. 17-19.
- O2. **Long, M. D.**, 2009. Going with the mantle flow. *Nature Geoscience*, 2, 10-11. (News and Views article)
- O1. **Long, M. D.**, 2006. Anisotropy and deformation in the Earth's mantle: Seismological observations, geodynamical models, and laboratory experiments. Ph.D. Thesis, Massachusetts Institute of Technology, Cambridge, MA. Thesis supervisor: Rob van der Hilst.

## Student and Postdoctoral Supervision

### I. Postdoctoral Advisees

Current postdoctoral advisees at Yale:

- Dr. Miriam Reiss (June 2018-present; six-month postdoctoral scholarship from Germany)



Past postdoctoral advisees at Yale:

- Dr. Andrea Tesoniero (2017-2018)
- Dr. Heather Ford (2013-2016)  
*Current position: Assistant Professor, University of California, Riverside*
- Dr. Xiaobo He (2010-2012)  
*Current position: Assistant Professor, Zhejiang University*

## II. Graduate Advisees

Current graduate advisees at Yale:

- Neala Creasy (Ph.D. expected 2019) – primary advisor
- Puskar Mondal (Ph.D. expected 2021) – primary advisor
- Neta Bar (Ph.D. expected 2020) – second discourse advisor
- Sarah Arveson (Ph.D. expected 2020) – second discourse advisor

Past graduate advisees at Yale:

- Andrea Servali (M.S. 2018) – primary advisor  
*Current position: Data analyst intern, Edmodo*
- Colton Lynner (Ph.D. 2015) – primary advisor  
*Current position: Research Scientist, University of Arizona*
- Caroline Eakin (Ph.D. 2015) – primary advisor  
*Current position: Research Fellow (tenure track), Australian National University*
- Erin Wirth (Ph.D. 2014) – primary advisor  
*Current position: Research Geophysicist, United States Geological Survey*
- Karen Paczkowski (Ph.D. 2012) – co-advisor (with Dave Bercovici & Mark Brandon)  
*Current position: AAAS Executive Branch Fellow, National Science Foundation*
- Jenny Hanna (M.S. 2011) – primary advisor  
*Current position: Law graduate, Quinnipiac University*
- Bradford Foley (Ph.D. 2014) – second discourse advisor  
*Current position: Assistant Professor, Pennsylvania State University*
- Anwar Mohiuddin (Ph.D. expected 2019) – second discourse advisor  
*Current position: Ph.D. candidate, Yale*
- Jie Deng (Ph.D. expected 2019) – second discourse advisor  
*Current position: Ph.D. candidate, Yale*

Ph.D. thesis committee membership (excluding advisees):

- Helen Janiszewski (Ph.D. 2017), Columbia University
- Zhen Liu (Ph.D. 2017), Yale
- Xiaojun Chen (Ph.D. 2017), Yale
- Alexandra Goryaeva (Ph.D. 2016), Université Lille 1, Lille, France
- Christopher Thissen (Ph.D. 2016), Yale
- Tolulope Olugboji (Ph.D. 2014), Yale
- Duayne Rieger (Ph.D. 2014), Yale
- Saphala Karallyadda (Ph.D. 2014), Victoria University, Wellington, NZ

## III. Undergraduate Research Advisees

Current undergraduate advisees:

- Katherine Lutz (Yale College '20) – research advisor, summer 2017-present
- Samuel Borden (Yale College '20) – research advisor, fall 2018-present

#### Past undergraduate advisees:

- Jonathan Wolf (University of Muenster) – internship advisor at Yale, fall 2017-winter 2018
- Juan Aragon (Yale College '17) – research and senior thesis advisor, 2014-2017
- Kenneth Jackson (Yale College '17) – research advisor, summer 2014 and 2015-2016
- Eric Fein (Yale College '16) – research and senior thesis advisor, 2013-2016
- Ivette López (Yale College '16) – senior essay advisor, 2015-2016
- Lauren Abrahams (IRIS intern), Yale – research co-advisor, summer 2015
- Leah Campbell (Yale College '15) – research/senior essay advisor, 2012-2015
- XinXin Xu (Yale College '16) – senior essay advisor, fall 2014-2015
- John McNamara (Yale College '17) – research advisor, summer 2014
- Daniel Petkevich (Yale College '12) – senior essay advisor (Physics), spring 2012
- Kimberly McCormack (IRIS intern), Yale – research co-advisor, summer 2011
- Mignon Johnston (2009 summer undergraduate research assistant, Yale; 2008 summer intern, Carnegie Institution) – research advisor
- Erin Wirth (2008 summer intern), Carnegie Institution – research advisor
- Amanda Klaus (2007 summer intern), Carnegie Institution – research co-advisor

#### Teaching History (all at Yale University)

##### Introduction to Seismology (G&G456/556) [2013(S), 2014(F), 2017(S), 2018(F)]

- Advanced undergraduate and graduate course covering earthquakes and seismic waves, P and S waves, surface waves and free oscillations, remote sensing of Earth's interior and faulting mechanisms. Average enrollment: 7 students.

##### Forensic Geoscience (G&G240) [2010(F), 2012(F), 2015(S), 2018(S)]

- Undergraduate seminar course covering the applications of geophysical and geochemical methods to criminal, historical, and archeological investigations. Average enrollment: 14 students.

##### Natural Disasters (G&G100) [2013(F), 2015 (F), 2017(F)]

- Natural events and their impact on humanity and the built environment. Earthquakes, volcanoes, tsunamis, landslides, coastal flooding, tornadoes, hurricanes, and meteoritic impacts. Hazard mitigation strategies. Consequences of global warming. Average enrollment: 160 students.

##### Regional Perspectives on Global Geoscience (G&G370/757) [2017(S)]

- Reading seminar in preparation for two-week G&G department field trip to Japan in June 2017. Enrollment: 17 students.

##### Seminar in Mantle and Core Processes (G&G744) [2009(F), 2012(F), 2014(F)]

- Graduate reading seminar on the core-mantle boundary and D'' region (F09), results from the EarthScope project (F12), and structure and dynamics of the transition zone and lower mantle (F14). Average enrollment: 13 students.

##### Physics and Phenomenology of Subduction (G&G640) [2010(S)]

- Graduate seminar course on subduction zone processes. Enrollment: 6 students.

##### Observational Seismology (G&G558) [2009(F)]

- Graduate course on techniques used in global seismology, including theory and application of common analysis methods and current research topics. Included one week of field seismology experience in eastern Oregon. Enrollment: 5 students.

## **Invited Talks and Seminars** (since 2009; \*indicates EarthScope Speaker Series talk)

March 2019 - Earth and Environmental Sciences department seminar, Lehigh (upcoming)  
February 2019 - Geophysics department seminar, Stanford University (upcoming)  
December 2018 - American Geophysical Union Fall Meeting, invited talk (upcoming)  
October 2018 - Earth and Space Sciences department seminar, West Chester University (upcoming)  
September 2018 - Earth Sciences department seminar, Southern Methodist University (upcoming)  
September 2018 - EAPS Department Lecture, Massachusetts Institute of Technology  
July 2018 - Instructor, CIDER summer school on deep Earth heterogeneity, UCSB  
June 2018 - Canadian Geophysical Union Joint Meeting, invited talk  
May 2018 - Geological Sciences departmental seminar, Binghamton University  
April 2018 - Earth and Atmospheric Sciences colloquium, Indiana University  
January 2018 - Rutgers Geology Museum Open House lecture\*  
January 2018 - Edwin Allday Distinguished Lecture, University of Texas at Austin  
December 2017 - American Geophysical Union Fall Meeting, two invited talks  
November 2017 - Yale Forest Forum Seminar, School of Forestry and Environmental Studies  
October 2017 - Geological Society of America Annual Meeting, invited talk  
October 2017 - Earth and Environmental Sciences colloquium, Wesleyan University  
May 2017 - EarthScope National Meeting, invited keynote talk  
March 2017 - Virtual guest lecture, mantle plumes seminar, Colgate University  
February 2017 - Earth and Planetary Science department seminar, UC Berkeley  
February 2017 - Earth and Environmental Sciences department seminar, University of Kentucky\*  
January 2017 - Math+X seismology and mathematics symposium, Rice University, invited talk  
December 2016 - American Geophysical Union Fall Meeting, two invited talks  
December 2016 - CIDER pre-AGU kickoff workshop, keynote talk, Berkeley, CA  
November 2016 - Earth Sciences seminar, University of Southern California\*  
November 2016 - Special geophysics seminar, University of Oxford, Oxford, UK  
November 2016 - Special geophysics seminar, Universität Münster, Münster, Germany  
October 2016 - Seismological Society of America Eastern Section Meeting, invited talk  
October 2016 - Geology Colloquium, West Virginia University\*  
October 2016 - Earth and Planetary Science Colloquium, McGill University\*  
July 2016 - SEDI (Study of Earth's Deep Interior) Symposium, Nantes, France, invited talk  
July 2016 - Instructor, CIDER summer school on flow in the deep Earth, UCSB  
April 2016 - Seismological Society of America Annual Meeting, invited talk  
December 2015 - American Geophysical Union Fall Meeting, two invited talks  
October 2015 - GeoBerlin, Berlin, Germany, invited talk  
February 2015 - Seismological Laboratory seminar, California Institute of Technology  
November 2014 - Earth and Planetary Science department seminar, Northwestern University  
September 2014 - Earth Science department seminar, Rice University  
September 2014 - Earth Science Colloquium, Lamont-Doherty Earth Observatory, Columbia  
February 2014 - Weekly seminar, Department of Terrestrial Magnetism, Carnegie Institution  
December 2013 - American Geophysical Union Fall Meeting, two invited talks, San Francisco, CA  
October 2013 - Institute for Geophysics seminar, University of Texas at Austin  
September 2013 - USArray TA Science Symposium, Woods Hole, MA, invited talk  
July 2013 - Instructor, CIDER summer school on continental evolution, UC Berkeley  
January 2013 - Geophysics Department seminar, Stanford University  
November 2012 - Pacific Rim Subduction Workshop, invited talk, ERI, Tokyo, Japan  
September 2012 - Geosciences Department guest lecture, University of Massachusetts at Amherst  
April 2012 - European Geosciences Union General Assembly, invited talk, Vienna, Austria

April 2012 - Geophysics seminar, Swiss Federal Inst. of Technology (ETH), Zurich, Switzerland  
 February 2012 - Earth and Environmental Sciences department seminar, University of Rochester  
 June 2011 - Interior of the Earth Gordon Research Conference, invited talk, S. Hadley, MA  
 June 2011 - Interior of the Earth Gordon-Kenan Research Seminar, invited talk, S. Hadley, MA  
 June 2011 - EarthScope Transportable Array Working Group Webinar  
 April 2011 - Friday informal seminar, Earth Resources Laboratory, MIT  
 April 2011 - Earth Science seminar, Scripps Institution of Oceanography, UCSD  
 September 2010 - Earth Science department seminar, Rice University  
 September 2010 - Earth Sciences seminar, Washington State University  
 June 2010 - COMPRES annual meeting, invited keynote talk, Stevenson, WA  
 June 2010 - Goldschmidt meeting, invited talk, Knoxville, TN  
 May 2010 - European Geosciences Union General Assembly, invited talk, Vienna, Austria  
 April 2010 - Waveform Tomography Workshop, invited talk, RPI Inverse Problems Center  
 February 2010 - Earth and Atmospheric Sciences department seminar, Cornell University  
 December 2009 - American Geophysical Union Fall Meeting, invited talk, San Francisco, CA  
 October 2009 - Seismological Laboratory seminar, California Institute of Technology  
 September 2009 - Earth and Planetary Sciences department colloquium, Harvard University  
 September 2009 - Geological Sciences department colloquium, Brown University  
 March 2009 - Geodynamics seminar, Lamont-Doherty Earth Observatory, Columbia University  
 March 2009 - Geological Sciences department colloquium, Stony Brook University  
 March 2009 - Special seminar, Instituto Geofisico del Peru, Lima, Peru

## Funding History

### I. Ongoing sponsored projects

- NSF-Geophysics, “New approaches to shear wave splitting tomography.” PI: **Maureen Long** (Yale University). Project duration: 12/1/18 – 11/30/21 (36 months). Budget: \$331,275. *Status: Recommended for funding.*
- NSF-Geophysics/EarthScope, “Modification of lithospheric structure via subduction, terrane accretion, and rifting: A case study beneath Connecticut.” PI: **Maureen Long** (Yale University). Project duration: 6/15/18 – 6/14/21 (36 months). Budget: \$385,235.
- NSF-Geophysics, “Constraining lowermost mantle flow through observations and models of seismic anisotropy.” PI: **Maureen Long** (Yale University). Project duration: 6/1/16-5/31/19 (36 months). Budget: \$269,934.
- NSF-EarthScope/GeoPRISMS, “Collaborative Research: Mantle dynamics, lithospheric structure, and topographic evolution of the southeastern US continental margin.” Lead PI: **Maureen Long** (Yale University); additional PIs: Margaret Benoit (The College of New Jersey), Scott King (Virginia Tech), and Eric Kirby (Oregon State). Project duration: 5/1/13-4/30/16 (36 months), with subaward and extension to 4/30/19. Yale budget: \$197,766, plus \$82,740 subaward from TCNJ.

### II. Completed sponsored projects

- NSF-Geophysics, “CAREER: Geodynamics of subducting slabs in the Earth’s deep mantle from seismic anisotropy.” PI: **Maureen Long** (Yale University). Project duration: 4/1/12-3/31/17 (60 months), no cost extension to 9/30/17. Budget: \$539,932.

- NSF-EarthScope, “Anisotropic properties of the mid-lithospheric discontinuity beneath central and eastern North America.” PI: **Maureen Long** (Yale University). Project duration: 9/1/14-8/31/16 (24 months). Budget: \$161,237.
- NSF-GeoPRISMS, “Collaborative Research: A community seismic experiment targeting the pre-, syn-, and post-rift evolution of the Mid Atlantic US margin.” Lead PI: Harm van Avendonk (University of Texas at Austin); additional PIs: Anne Bécél (Lamont-Doherty Earth Observatory), Margaret Benoit (The College of New Jersey) Gail Christeson (University of Texas at Austin), Brandon Dugan (Rice University), James Gaherty (Lamont-Doherty Earth Observatory), Steven Harder (University of Texas at El Paso), Matthew Hornbach (Southern Methodist University), Daniel Lizzeralde (Woods Hole Oceanographic Institution), **Maureen Long** (Yale University) Maria Beatrice Magnani (University of Memphis), and Donna Shillington (Lamont-Doherty Earth Observatory). Project duration: 8/15/13-8/14/16 (36 months). Yale budget: \$27,349.
- NSF-Geophysics, “Collaborative Research: Study of the Peruvian flat slab and its effects on the continental lithosphere.” Lead PI: Lara Wagner (University of North Carolina); additional PIs: Susan Beck (University of Arizona), **Maureen Long** (Yale University). Project duration: 8/1/10-7/31/14 (48 months). Yale budget: \$160,936.
- NSF-Geophysics, “Collaborative Research: A global examination of the subduction zone flow field from seismic anisotropy.” Lead PI: **Maureen Long** (Yale University); additional PIs: Chris Kincaid (University of Rhode Island), Laurent Montési (University of Maryland). Project duration: 10/1/09 – 9/30/12 (36 months), no cost extension to 9/30/13. Yale budget: \$141,109.
- Alfred P. Sloan Research Fellowship. Field: Physics. Awardee: **Maureen Long** (Yale University). Project duration: 9/15/11-9/14/13 (24 months). Budget: \$50,000.

## Field and Seagoing Experience

- PI, New England Seismic Transects (NEST) – deployment of ~20 broadband seismometers across Massachusetts, Vermont, and New Hampshire (with Vadim Levin; field work began August 2018).
- PI, Seismic Experiment for Imaging Structure beneath Connecticut (SEISConn) – deployment of 15 broadband seismometers across northern CT (2015-present). *Data set is archived at the IRIS Data Management Center and will be publicly available in 2021; doi:10.7914/SN/XP\_2015.*
- Co-leader of undergraduate field trips to the Caribbean (Dominica/Martinique), Hawaii (Big Island), and the Azores (São Miguel/Pico/Faial/Terceira) for G&G100 (Natural Disasters) class (March 2010, March 2012, March 2016, March 2018).
- Faculty leader of two-week Yale G&G departmental field trip for graduate students to Japan, June 2017.
- PI, Mid-Atlantic Geophysical Integrative Collaboration (MAGIC) – deployment of 28 broadband seismometers across the mid-Atlantic Appalachians as part of the USArray Flexible Array (with Margaret Benoit; 2013-2016). *Data set is archived at the IRIS Data Management Center and will be publicly available in late 2018; doi:10.7914/SN/7A\_2013.*
- Co-chief scientist, R/V Endeavor, Eastern North American Margin Community Seismic Experiment (ENAM CSE), broadband ocean bottom seismometer recovery cruise, spring

2015. *Data set is archived at the IRIS Data Management Center and is publicly available; doi:10.7914/SN/YO\_2014.*

- PI, Peru Lithosphere and Slab Experiment (PULSE) – deployment of 40 broadband seismometers above the flat slab in Peru (with Lara Wagner and Susan Beck; 2010-2013). *Data set is archived at the IRIS Data Management Center and is publicly available; doi:10.7914/SN/ZD\_2010.*
- PI, Test Experiment for Eastern North America (TEENA) – deployment of 9 broadband seismometers across N. Carolina, Virginia, W. Virginia, and Ohio (with Margaret Benoit; 2009-2010).
- High Lava Plains broadband seismic experiment (HLP) – deployment of 110 broadband seismometers in eastern Oregon, southwestern Idaho, and northern Nevada (2007-2009; project PIs: Matt Fouch and David James).
- GPS survey of Oregon and Washington (Summer 2000; project PI: Rob McCaffrey).

## Professional Service

### I. Service to professional societies and organizations

2017-present	Member, AGU Hess Medal Committee
2016-present	Member, US Scientific Earthquake Studies Advisory Committee (SESAC; <i>advises director of the U.S. Geological Survey on matters related to USGS participation in the National Earthquake Hazards Reduction Program</i> )
2016-present	Member, Incorporated Research Institutions for Seismology (IRIS) International Development Seismology Committee
2014-present	Member, Seismological Society of America (SSA) Reid Medal Subcommittee
2018	Chair, nominations committee, AGU Seismology Section
2016-2017	Member (2016-2017), chair (2017), Gutenberg Lecture selection committee, AGU Seismology Section
2015-2017	Member, IRIS Education and Public Outreach Standing Committee
2013-2016	Member, GeoPRISMS Steering and Oversight Committee
2015	Participant, National Academy of Sciences/National Science Foundation Meeting of Experts, Future Seismic and Geodetic Facility Needs ( <i>one of six experts consulted to advise NSF on future facility needs</i> )
2010, 2015	Member, IRIS Board of Directors Nominating Committee
2015	Member, GeoPRISMS mid-life program review report writing committee ( <i>co-wrote report and participated in presentation to the advisory committee meeting at NSF</i> )
2013	Member, Amphibious Array Steering Committee Nominations Committee
2012	Member, IRIS summer internship program selection committee
2009-2013	Member, IRIS EarthScope USArray Advisory Committee
2009-2013	Member, IRIS EarthScope Electromagnetic Working Group

### II. Editorial activities

2018-present	Editor, <i>Geochemistry, Geophysics, Geosystems</i>
2003-present	Manuscript reviewer for <i>Bulletin of the Seismological Society of America, Computers and Geosciences, Current Science, Earth and Planetary Science Letters, Earth and Space Science, Earth Planets Space, G-cubed, Geological</i>

*Society of London Special Publications, Geology, Geophysical Journal International, Geophysical Research Letters, Geoscience Frontiers, Geosphere, Gondwana Research, International Geology Review, Journal of Geodynamics, Journal of Geophysical Research-Solid Earth, Journal of Metamorphic Geology, Lithosphere, Nature, Nature Communications, Nature Geoscience, Physics of the Earth and Planetary Interiors, Precambrian Research, Proceedings of the IODP, Proceedings of the National Academy of Sciences, Pure and Applied Geophysics, Reviews of Geophysics, Science, Science Advances, Scientific Reports, Seismological Research Letters, Solid Earth, and Tectonophysics.*

2016-2017 Associate editor, *Journal of Geophysical Research-Solid Earth*  
 2012-2014 Co-editor, special volume on USArray science, *Earth and Planetary Science Letters* (with Alan Levander and Peter Shearer)

### **III. Proposal reviews and panel service**

2006-present Proposal reviewer for National Science Foundation (NSF) (EAR-CSEDI, EAR-FESD, EAR-EarthScope, EAR-Geophysics, EAR-Continental Dynamics, EAR-Tectonics, EAR-GeoPRISMS, EAR-Instrumentation and Facilities, OCE-MG&G), National Aeronautics and Space Administration (NASA), American Chemical Society (ACS) Petroleum Research Fund, Czech Science Foundation, Natural Environment Research Council (UK), National Research Council (Romania), Netherlands Organization for Scientific Research, National Research Agency (France), German Research Foundation, and the European Research Council

2018 Panelist, National Science Foundation, Division of Earth Sciences  
 2016 Panelist, USGS SCEC5 Review Panel  
 2015 Panelist, USGS Earthquake Hazards Program  
 2011 Review panelist, IRIS data product development proposals  
 2010 Panelist, National Science Foundation, Division of Earth Sciences

### **IV. Activities at scientific meetings**

2018 Session co-convener, “Advances in understanding Earth’s dynamic processes using seismic anisotropy,” AGU Fall Meeting (upcoming)  
 2018 Session co-convener, “Combining geology and geophysics in the Appalachians,” Geological Society of America (GSA) Northeast Section Meeting  
 2017 Session co-convener, “Advances in geodynamics and seismic anisotropy,” AGU Fall Meeting  
 2016 Session co-convener, “The Eastern North American Margin: Structure, dynamics, history, and processes,” AGU Fall Meeting  
 2016 Panelist, Special Interest Group on Work-Life Balance, IRIS Workshop  
 2015 Session co-convener, “Slabs in Earth’s mantle: Where do they go and how do they interact with the mantle?,” AGU Fall Meeting  
 2015 Member, EarthScope National Meeting Organizing Committee  
 2015 Leader, webinar on Earth structure, rheology, and geodynamics, Workshop on Future Seismic and Geodetic Facility Needs in the Geosciences  
 2015 Member, steering committee, NSF CSEDI Science Plan Workshop

2014	Session co-convener, "Volatiles and Earth's Mantle Processes," AGU Fall Meeting
2011-2016	Outstanding Student Paper Award judge, Seismology and Study of the Earth's Deep Interior sections, AGU Fall Meeting
2013	Session co-convener, "Seismic Anisotropy: Predictions, Observations, and Interpretations," AGU Fall Meeting
2012	Session co-convener, "Fluids and Hydrous Phases in Subduction Zones," AGU Fall Meeting
2011	Session co-convener, "Features and Interpretations of D" and the Core-Mantle Boundary (CMB)," AGU Fall Meeting
2010	Session co-convener, "Seismic Anisotropy in the Mantle: Progress, Prospects, and Pitfalls," AGU Fall Meeting
2010	Discussion leader, "Mechanism and Microstructure Transitions Related to Mantle Geophysics," Gordon Research Conference on Rock Deformation
2010	Session co-organizer, "Imaging Mantle Dynamics: From Top to Bottom," IRIS Workshop
2009	Session co-convener, "Cenozoic Volcanism in Western North America: Plumes, Drips, Extension and/or Subduction?," AGU Fall Meeting
2009	Panelist, session on interdisciplinary collaborations, Workshop for an EarthScope Science Plan
2009	Student Paper Award judge, EarthScope National Meeting
2008-2009	Outstanding Student Paper Award co-coordinator, Study of the Earth's Deep Interior section, AGU Fall Meetings
2004	Session convener, "New directions in seismic anisotropy," RPI Inverse Problems Center Opening Conference, April 2004

## **Department and University Service**

### **I. Service to the Geology & Geophysics Department**

2018-present	Director of Graduate Studies
2017 (spring)	Member, Program Review and Examination Committee
2014-2015	Director of Postdoctoral Affairs
2015	Member, Program Review and Examination Committee
2012-2014	Member, Colloquium Committee
2012-2014	Member, Graduate Admissions and Recruitment Committee
2012-2013	Member, Lithosphere and Surface Processes Faculty Search Committee
2010 (fall)	Member, Undergraduate Curriculum Committee
2009-2010	Member, Program Review and Examination Committee
2009-2010	Member, Computing Committee
2009 (spring)	Member, Graduate Admissions and Recruitment Committee

### **II. Service to Davenport College**

2010-2015, 2017-	Freshman/college advisor, Davenport College (2-4 advisees/year)
2013	Guest speaker, Davenport College Fellows Talk series



### III. Service to Yale University

2018-present	Member, Physical Sciences and Engineering Tenure and Appointments Committee
2017-present	Member, Faculty of Arts and Sciences Senate ( <i>includes membership on 2017-2018 Faculty Advancement, Yale College Expansion, Nominations, and Diversity and Inclusion subcommittees, and 2018-2019 Executive Council, Faculty Advancement, and Diversity and Inclusion subcommittees</i> )
2011-present	Yale member representative, UNAVCO (research consortium for geodesy)
2009-present	Yale member representative, IRIS (research consortium for seismology)
2018	Member, Yale College Porter and Field Prize Committee
2015, 2016	Guest lecturer, Association of Yale Alumni reunion weekend
2013	Panelist, “Behind the Scenes at NSF, DOE, DOD and Other Funding Agencies: An Insider’s Perspective on Grant Review,” Yale Office of Grant and Contract Administration
2012-2013	Member, Planning Committee, 2013 Yale Junior Faculty PI Retreat

### Education and Public Outreach Activities

#### I. Public talks and outreach

2018	Guest speaker, Science on the Silver Screen, Bruce Museum, Greenwich, CT – talk and discussion for the film “San Andreas”
2017	Guest speaker, Secret Science Club, Bell House, Brooklyn, NY
2017	Guest speaker, Yale-Myers Forest Summer Research Seminar, Ashford, CT
2015, 2017	Guest speaker, New Haven Mineral Club, Hamden, CT
2016	Guest speaker, Science on Saturdays public lecture, Yale
2013	Guest speaker, Science on Screen program, Real Art Ways, Hartford, CT – introductory talk on seismology for the film “Tremors”
2011	Speaker and panelist, public lecture and panel on the March 2011 Tohoku, Japan earthquake and tsunami, Yale Department of Geology & Geophysics
2010	Interview with Yale University iTunes U podcast series, “Earthshaking Quakes: From Haiti to a Maine Backyard”
2008	Participant, Science-Engineering-Technology Congressional Visits Day

#### II. Media interviews

2018	Interview with Hartford Courant on the New England Anomaly
2018	Interview with NBC Connecticut on East Coast tsunami hazards
2017	Interview with New Haven Register for story on the SEISConn experiment
2015	Interview with Connecticut News 8 on East Coast tsunami hazards
2015	Interview with Atlantic Media’s CityLab on the April 2015 Nepal earthquake
2015	Interview with NPR affiliate WNPR (Connecticut Public Radio) for “Where We Live” program segment on Connecticut earthquakes and geology
2015	Interviews on the January-February 2015 Plainfield, CT earthquake swarm (New Haven Register, Connecticut News 8, Fox Connecticut News, Connecticut Post, CBS News, WNPR, Yale Scientific Magazine)
2014	Interview after Deep River, CT earthquake, NBC-Connecticut
2013	Interview with NPR affiliate WCAI (Woods Hole, MA) for “Living Lab” program segment on the EarthScope project

2011 Interviews after March 2011 Tohoku, Japan earthquake (Connecticut Post, WSFB-Channel 3)

### **III. Outreach to K-12 students and educators**

2015-present Coordinator, Field Experiences for Science Teachers (FEST) program (*to date 13 Connecticut-based high school science teachers have participated in one-week field seismology experiences*)

2018 Co-convener, session on “Cultivating and sustaining effective teacher-scientist partnerships,” Connecticut Science Educators Annual Conference (upcoming)

2017 Talk on EarthScope science, Connecticut Science Educators Annual Conference, Hamden, CT

2017 Guest speaker, Darcey School, Cheshire, CT

2015, 2017 Guest speaker, Cheshire High School, Cheshire, CT

2015 Interview on the Nepal earthquake for student documentary, Journalism and Media Academy Magnet School, Hartford, CT

2010, 2012, 2014 Guest speaker, Institute for Science Instruction and Study, Southern Connecticut State University, New Haven, CT

2010 Guest speaker on natural disasters, evening program for middle and high school teachers, Peabody Museum of Natural History, New Haven, CT

2010 Volunteer judge, New Haven Science Fair, New Haven, CT

2008 Guest speaker, British School, Washington, DC

2003 Science fair judge, Cambridge Rindge & Latin High, Cambridge, MA

2003 Guest speaker, Prescott Elementary School, Groton, MA

2002 Guest speaker, South Elementary School, Andover, MA

### **IV. Undergraduate outreach and education activities**

2014 Guest speaker, Yale Society of Physics Students

2013 Instructor, IRIS summer internship program orientation week, Socorro, NM

### **V. Activities supporting women in STEM**

2018 Faculty lunch speaker, Yale Women in Physics

2014-2016, 2018 Lunch discussion leader, Women in Science at Yale (WISAY)/Women Faculty Forum (WFF) Annual Mentoring Lunch

2012, 2015 Lunch discussion leader, Northeast Conference for Undergraduate Women in Physics, Yale University

2014 Panelist, Earth Science Women’s Network (ESWN) workshop on “Getting on the Tenure Track and Succeeding,” AGU Fall Meeting

2013 Guest dinner speaker, Undergraduate Women in Science at Yale (UWISAY)

2009, 2012 Volunteer session leader and “Ask a Scientist” participant, Yale Girls’ Science Investigations session on “The Geophysical World,” Yale University

2008 Panelist, Women in Science Forum, American University Women’s Initiative, Washington, DC

2006 Mentor, Keys to Empowering Youth (summer science program for middle school girls), MIT

2003 Invited talk on science careers, Girl Scout Troop 380, Chelmsford, MA