

JOSHUA B. RUSSELL

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Interests: broadband ocean-bottom seismology, tomographic imaging of elastic earth structure, seismic anisotropy, surface wave propagation & overtone interference, inverse methods, and structure and evolution of oceanic lithosphere.

EDUCATION

Columbia University, Graduate School of Arts & Sciences, New York, NY

PhD in Earth and Environmental Sciences, expected 2020

MA in Earth and Environmental Sciences, May 2017

University of Missouri, College of Arts and Science, Columbia, MO

BS in Physics (Mathematics minor) – Summa Cum Laude, May 2015

HONORS AND AWARDS

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| National Science Foundation Graduate Research Fellowship | 2015 – 2018 |
| Dean's Diversity Fellowship | 2015 |
| Award for Academic Distinction – University of Missouri | 2014 |

GEOPHYSICAL FIELD EXPERIENCE

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| Pacific Array OBS Deployment | April 2018 (4 weeks) |
| CD-CAT <i>Passive Source Experiment, Central Anatolia, Turkey</i> | June 2015 (2 weeks) |
| <ul style="list-style-type: none">- Field team co-leader, successfully removing 60 Streckeisen STS-2 seismometers in two weeks from central and southern Turkey.- Provided technical support and real-time troubleshooting to ensure successful data recovery.- Coordinated instrument organization and cleanup prior to delivery to U.S. Customs. | |
| OINK <i>Passive Source Experiment, Western Kentucky</i> | July 2013 (2 weeks) |
| <ul style="list-style-type: none">- Field team co-leader, removing 30 Guralp CMG-3T seismometers from southeast Missouri and redeploying them in western Kentucky for Phase II of the experiment. | |
| IRIS Summer Internship <i>IRIS-Passcal Instrumentation Short Course, Socorro, NM</i> | May 2013 (1 week) |
| <ul style="list-style-type: none">- Attended a weeklong course covering seismic instrumentation with tutorials on deploying and recovering broadband seismometers. | |

PEER-REVIEWED PUBLICATIONS

Russell, J.B., J.B. Gaherty, P.-Y. Lin, D. Lizarralde, J.A. Collins, G. Hirth, R.L. Evans (*in prep*). High-resolution constraints on Pacific upper mantle petrofabric inferred from surface-wave anisotropy. *Journal of Geophysical Research*.

CONFERENCE PROCEEDINGS

- Russell, J.B.**, J.B. Gaherty, P.-Y. Lin, D. Lizarralde, J.A. Collins, G. Hirth, R.L. Evans (2018). Seismic anisotropy of oceanic lithosphere from OBS noise correlations. *IRIS Workshop 2018*, Albuquerque, NM.
- Russell, J.B.**, J.B. Gaherty, P.-Y. Lin, D. Lizarralde, J.A. Collins, G. Hirth, R.L. Evans (2017). NoMelt Experiment: High-resolution constraints on Pacific upper mantle fabric inferred from radial and azimuthal anisotropy. *AGU Fall Meeting 2017*, New Orleans, LA. Poster Abstract: DI43B-0361.

- Russell, J.B.,** J.B. Gaherty, P.-Y. Lin, M. Zebker (2017). Constraints on radial and azimuthal anisotropy in the central Pacific upper mantle from the NoMelt OBS array. *OBSIP Symposium 2017*, Portland, ME.
- Gaherty, J.B., **J.B. Russell**, P.-Y. Lin (2017). Constraints on mantle flow in the oceanic upper mantle from a high-resolution estimate of seismic velocities in the central Pacific. *JpGU-AGU Joint Meeting 2017*, Poster Abstract: SIT25-P04.
- Russell, J.B.,** J.B. Gaherty, P.-Y. Lin, M. Zebker (2017). Constraints on radial and azimuthal anisotropy in the central Pacific upper mantle from the NoMelt OBS array. *Earthscope National Meeting 2017*, Anchorage, AK.
- Russell, J.B.,** J.B. Gaherty, P.-Y. Lin, M. Zebker (2016). Constraints on radial anisotropy in the central Pacific upper mantle from the NoMelt OBS array. *AGU Fall Meeting 2016*, Talk Abstract: S14A-05.
- Russell, J.B.,** J.B. Gaherty, P.-Y. Lin, G. Jin (2016). Constraints on radial anisotropy in the central Pacific upper mantle from the NoMelt OBS array. *IRIS Workshop 2016*, Vancouver, WA.
- Russell, J.B.,** S.L. Beck, N. Turkelli, D. Kalafat, A.A. Ozacar, E.A. Sandvol (2014). Earthquake detection near the Central Anatolian Fault Zone using continuous data from the CD-CAT experiment. *AGU Fall Meeting 2014*, Poster Abstract: S13D-4492.
- Russell, J.B.,** J.J. Braun, G.S. Mattioli (2014). Using GPS signal-to-noise ratio (SNR) observations to detect and characterize the volcanic plume associated with the 2003 Soufrière Hills Volcano dome collapse. *2014 GSA Annual Meeting*, Vancouver BC, Canada, Poster Abstract: T233.
- Russell, J.B.,** H.J. Gilbert, G. Pavlis (2013). Crustal Structure Beneath the Ozark Plateau and Illinois Basin using the OIINK Flexible Array. *AGU Fall Meeting 2013*, Poster Abstract: T23B-2582.
- Russell, J.B.,** H.J. Gilbert, G. Pavlis (2013). "Crustal Structure Beneath the Ozark Plateau and Illinois Basin using the OIINK Flexible Array". *American Physical Society (APS) Prairie Section*, University of Missouri, Poster Abstract F1.38.

OUTREACH EXPERIENCE

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| IRIS Diversity Recruitment Lecture Series Speaker | 2017 – Present |
| Research as Art at the Lamont-Doherty Earth Observatory | 2016 – Present |
| New Student Orientation Camping trip – Columbia University | Summer 2016 |
| Girls' Science Day at Columbia University | Fall 2015 |

TEACHING

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| Quantitative Methods of Data Analysis | Fall 2017 – 2018 |
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COMPUTATIONAL EXPERIENCE

Scripting/Programming Languages – MATLAB, Python, Fortran, C
Operating Systems – Linux/UNIX, Mac OS X, Windows
Other – Latex, SAC, GMT, LabVIEW, AutoCAD, Adobe Illustrator, Microsoft Office

PROFESSIONAL MEMBERSHIPS

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| American Geophysical Union | 2013 – Present |
| Geological Society of America | 2014 – 2015 |
| Sigma Pi Sigma, Physics Honors Society | 2013 – 2015 |