

Ross Ronan Maguire

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Education	2018 PhD, University of Michigan, Department of Earth and Environmental Sciences 2011 BS, Michigan State University, Department of Geological Sciences
Positions	2019 – present NSF Postdoctoral Fellow, University of New Mexico 2018 – 2019 Postdoctoral Research Associate, University of Maryland 2012 – 2018 Graduate Student Researcher, University of Michigan 2012 – 2018 Graduate Student Instructor, University of Michigan 2011 – 2012 Petrology Lab Manager, Michigan State University
Awards	2019 University of Michigan, John Dorr Graduate Academic Achievement Award 2019 National Science Foundation, Postdoctoral Fellowship 2018 American Geophysical Union, Study of the Earth's Deep Interior Graduate Research Award 2017 Michigan Geophysical Union Best Student Presentation Award 2016 XSEDE Resource Allocation (\$26,718 worth of computing resources) 2016 Scott Turner Research Grant (\$1,700) 2015 XSEDE Resource Allocation (\$26,718 worth of computing resources) 2014 Scott Turner Research Grant (\$1,700)
Teaching	2019 Structural Geology, University of Maryland (Guest Lecturer) 2019 Seismology / Seismic Wave Propagation, University of Maryland (Guest Lecturer) 2018 Field Geophysics, University of Maryland (Guest Lecturer / Field Assistant) 2018 Observational Geophysics, University of Maryland (Guest Lecturer) 2018 Active Tectonics, University of Maryland (Guest Lecturer) 2012 – 2017 Introduction to Geology, University of Michigan (Graduate Student Instructor) 2013 – 2014 Geology Field Camp, University of Michigan (Graduate Student Instructor)
Publications	<p>Maguire, R., Schmerr, N., Lekic, V., Hurford, T., Rhoden, A., Dai., L. Long period surface waves can constrain the thickness of Europa's water ice shell. <i>In Prep.</i></p> <p>Hurford, T., Henning, W.G., Maguire, R., Lekic, V., Schmerr, N., Panning, M., Bray, V.J., Manga, M., Kattenhorn, S.A., Quick., L.C., Rhoden., A.R. (In Revision at Icarus) Seismicity on Tidally Active Solid-Surface Worlds https://arxiv.org/abs/1811.06536</p> <p>Ritsema, J., Maguire, R., Cobden, L., Goes, S., Seismic Analyses of Plume Conduits in the Deep Mantle. (In Press) AGU Monograph "Mantle Convection and Surface Expressions"</p> <p>Maguire, R., Ritsema, J., Goes, S. (2018). Evidence of Subduction-Related Thermal and Compositional Heterogeneity Below the United States From Transition Zone Receiver Functions. <i>Geophysical Research Letters</i>, 45(17), 8913–8922. https://doi.org/10.1029/2018GL078378</p> <p>Maguire, R., Ritsema, J., Bonnin, M., van Keken, P. E., Goes, S. (2018). Evaluating the Resolution of Deep Mantle Plumes in Teleseismic Traveltime Tomography. <i>Journal of Geophysical Research : Solid Earth</i>, 123(1), 384–400. https://doi.org/10.1002/2017JB014730</p> <p>Maguire, R., Ritsema, J., Goes, S. (2017). Signatures of 660-km topography and compositional heterogeneity in seismic images of upwellings. <i>Geophysical Research Letters</i>, 1–19. https://doi.org/10.1002/2017GL073120</p> <p>Maguire, R., Ritsema, J., van Keken, P. E., Fichtner, A., Goes, S. (2016). P- and S-wave delays caused by thermal plumes. <i>Geophysical Journal International</i>, 206(2), 1169–1178. https://doi.org/10.1093/gji/ggw187</p>

Conference Presentations	Jones, T., Maguire, R. , Sime, N., van Keken, P.E., Ritsema, J. The geodynamical origin of lowermost mantle structure, Goldschmidt 2019
	van Keken, P. E, Maguire, R. , Ritsema, J., Jones, T., Sime, N., Nakajima, M. Predictions of the morphology and origin of plumes and LLSVPs from combined geodynamical and seismological modeling, EGU 2019
	Maguire, R. , Schmerr, N., Lekic, V. Constraining the thickness of Europa's ice shell with observations of fundamental mode Rayleigh wave dispersion, Lunar and Planetary Science Conference 2019
	Maguire, R. , Schmerr, N., Lekic, V., Hurford, T.A. Performance of a broadband seismometer on Europa and implications for the detection of liquid water below its icy surface, AGU 2018
	Moulik, P., Havlin, C., Maguire, R. , Lekic, V. Real-time interactive analyses and visualization of massive and diverse seismological observations, AGU 2018
	Maguire, R. , Ritsema, J. Seismic observation of a sharp post-garnet phase transition within the Farallon crust, AGU 2017
	Maguire, R. , Ritsema, J., Goes, S. Tomographic evidence for basalt segregation in the uppermost lower mantle, Gordon Research Conference 2017
	Maguire, R. , Ritsema, J., Goes, S. Seismic evidence for a subducted oceanic plateau beneath the southeastern USA, Gordon Research Conference 2017
	Maguire, R. , Ritsema, J. Imaging the mantle transition zone with the USArray, Michigan Geophysical Union 2017
	Maguire, R. , Ritsema, J., Bonnin, M., van Keken, P.E., Fichtner, A., Goes, S. Resolving plume tails in the lower mantle with finite frequency tomography : Insight from synthetic experiments, AGU 2016
Service	Maguire, R. , Ritsema, J. Modelling the basalt fraction in the transition zone using P-to-S conversions, Study of Earth's Deep Interior Symposium 2016
	Maguire, R. , Ritsema, J., van Keken, P.E., Fichtner, A., Goes, S. Investigating the effects of mantle plumes on 3D seismic waveforms, AGU 2014
	Maguire, R. , van Keken, P.E., Dibble, M., Davaille, A. Modelling laboratory plumes with numerical techniques : validation, verification, and determination of fluid properties, Computational Infrastructure for Geodynamics Mantle Convection and Lithosphere Dynamics Workshop 2014
	2019 – Reviewer, Geology
	2019 – Reviewer, Gondwana Research
Invited Talks	2019 – Reviewer, Earth and Planetary Science Letters
	2019 – Reviewer, Geophysical Journal International
	2018 – 2019 Reviewer, Geophysical Research Letters
References	2019, Carnegie Institution for Science DTM Weekly Seminar Series
	2019, Smithsonian National Museum of Natural History Seminar
	2019, University of Maryland, Department of Geology, Lunchtime Seminar Series
References	Jeroen Ritsema (jritsema@umich.edu)
	Nick Schmerr, University of Maryland (nschmerr@umd.edu)
	Vedran Lekic (ved@umd.edu)
	Peter van Keken (pvankeken@carnegiescience.edu)