Curriculum Vitae
Vedran Lekic

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature_____ Vedran Lekić _____ Date_____9/28/2015____

Curriculum Vitae

I. PERSONAL INFORMATION

I.A.

Name: Vedran Lekic (Appointed 2012)
Title: Assistant Professor
D.O.B.: October, 8th, 1982
UID: 112196714
Address: Department of Geology
University of Maryland
College Park, Maryland 20742
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I.B. Academic Appointments at UMD:

2012-	Assistant Professor, Department of Geology, University of Maryland, College Park.
2011	Special Member of the Graduate Faculty, Department of Geology, University of Maryland, College Park.

I.D. Other Employment:

2010-	National Science Foundation Postdoctoral Fellow at the Department of Geological Sciences, Brown University.
2010	Postdoctoral Fellow at the Berkeley Seismological Laboratory, University of California, Berkeley.

I.E. Educational Background:

Ph.D.	Earth and Planetary Science, University of California, Berkeley, December 2009.
A.B.	Astronomy & Astrophysics and Earth & Planetary Science, magna cum laude Harvard University, May 2004.

II. RESEARCH, SCHOLARLY, & CREATIVE ACTIVITIES

II.C. Articles in Refereed Journals

NB: Underlined names represent undergraduate / graduate students under direct supervision.

1. Reeves, Z., **V. Lekic,** N. Schmerr, M. Kohler, and D. Weeraratne (2015), Lithospheric structure across the California Continental Borderland from receiver functions, *Geochem. Geophys. Geosyst.,* **16**, http://dx.doi.org/10.1002/2014GC005617.

2. Triana, S.A., D.S. Zimmerman, H.-C. Nataf, A. Thorette, **V. Lekic,** and D. Lathrop (2014), Helioseismology in a bottle: Modal acoustic velocimetry, *New J. Phys.* **16,** 113005, http://dx.doi.org/10.1088/1367-2630/16/11/113005.
3. Kolb, J. and **V. Lekic** (2014), A Robust Deconvolution Method Based on Transdimensional, Hierarchical, Bayesian Inference, *Geophys. J. Int.,* http://dx.doi.org/10.1093/gji/ggu079.
4. Ford, H.A., K.M. Fischer, and **V. Lekic** (2014), Localized shear in the deep lithosphere beneath the San Andreas fault system, *Geology,* **42** (4), 295-298, http://dx.doi.org/10.1130/G35128.1
5. Hopper, E., H.A. Ford, K.M. Fischer, **V. Lekic,** and M. J. Fouch (2013), The lithosphere-asthenosphere boundary and the tectonic and magmatic history of the northwestern United States, *Earth Planet. Sci. Lett.,* **69**, 81-89, http://dx.doi.org/10.1016/j.epsl.2013.12.016.
6. Šrámek, O., W.F. McDonough, E.S., Kite, **V. Lekic,** S.T. Dye, and S. Zhong (2013), Geophsyical and geochemical constraints on geoneutrino fluxes from Earth's mantle, *Earth Planet Sci. Lett.,* **361***,* 356-366, http://dx.doi.org/10.1016/j.epsl.2012.11.001
7. **Lekic, V.**, and K.M. Fischer (2013), Contrasting lithospheric signatures across the western United States revealed by Sp receiver functions, *Earth Planet. Sci. Lett.* **402**, 90-98, http://dx.doi.org/10.1016/j.epsl.2013.11.026.
8. French, S.W., **V. Lekic**, and B. Romanowicz (2013), Waveform tomography reveals channelled flow at the base of the oceanic lithosphere, *Science,* **342**, 227-230, http://dx.doi.org/10.1126/science.1241514.
9. **Lekic, V.**, S. Cottaar, A.M. Dziewonski, and B. Romanowicz (2012), Cluster analysis of global lower mantle tomography: A new class of structure and implications for chemical heterogeneity, *Earth Planet. Sci. Lett.,* **357**, 68-77, http://dx.doi.org:10.1016/j.epsl.2012.09.014.
10. **Lekic, V.**, K. M. Fischer, and S.W. French (2011), Lithospheric thinning beneath rifted regions of Southern California, *Science,* **334**, 6057*,* 783-787, http://dx.doi.org/10.1126/science.1208898.
11. **Lekic, V.** and B. Romanowicz (2011), Tectonic regionalization without *a priori* information: a cluster analysis of tomography, *Earth Planet Sci. Lett.* **308**, 151-160, http://dx.doi.org/10.1016/j.epsl.2011.05.050.
12. **Lekic, V.** and B. Romanowicz (2011), Inferring upper mantle structure by full waveform tomography using the spectral element method, *Geophys. J. Int.,* http://dx.doi.org/10.1111/j.1365-246X.2011.04969.x.
13. Dziewonski, A., **V. Lekic,** and B. Romanowicz (2010), Mantle Anchor Structure: An argument for bottom up tectonics*, Earth Planet. Sci. Lett*. **299**, 69-79, http://dx.doi.org/10.1016/j.epsl.2010.08.013.
14. Panning, M., **V. Lekic** and B. Romanowicz (2010), Importance of crustal corrections in the development of a new global model of radial anisotropy, *J. Geophys. Res.* **115**, B12325, http://dx.doi.org/10.1029/2010JB007520.

15. **Lekic, V.**, M. Panning, and B. Romanowicz (2010), A simple method for improving crustal corrections in waveform tomography, *Geophys. J. Int.,* **182**(1), 265-278, http://dx.doi.org/10.1111/j.1365-246X.2010.04602.x.

16. **Lekic, V.**, J. Matas, M. Panning, and B. Romanowicz (2010), Reply to "Comment on 'Measurement and implications of frequency dependence of attenuation'" by I. Morozov, *Earth Planet. Sci. Lett.,* **293**, 216-217, http://dx.doi.org/10.1016/j.epsl.2010.02.039.

17. **Lekic, V.**, J. Matas, M. Panning, and B. Romanowicz (2009)**,** Measurement and implications of frequency dependence of attenuation, *Earth Planet. Sci. Lett.,* **282**, 285-293, http://dx.doi.org/10.1016/j.epsl.2009.03.030.

18. Cammarano, F., **V. Lekic**, M. Manga, M. Panning, and B. Romaonwicz (2006), Long-period seismology on Europa: 1. Physically consistent interior models, *J. Geophys. Res.,* **111**, E12009, http://dx.doi.org/10.1029/2006JE002710.

19. Panning, M., **V. Lekic**, M. Manga, F. Cammarano, and B. Romanowicz (2006), Long-period seismology on Europa: 2. Predicted seismic response, *J. Geophys. Res.,* **111**, E12008, http://dx.doi.org/10.1029/2006JE002712.

20. Dunn, R.A., **V. Lekic**, R.S. Detrick, and D.R. Toomey (2005), Three-dimensional seismic structure of the Mid-Atlantic Ridge (35°N): Evidence for focused melt supply and lower crustal dike injection, *J. Geophys. Res.,* **110***,* B09101, http://dx.doi.org/10.1029/2004JB003473.

II.D. Articles in Review

1. Rudolph, M., **V. Lekic,** and C. Lithgow-Bertelloni, Viscosity jump in the Earth's mid mantle, *Science, in revision.*

II.D. Published in Conference Proceedings

1. Dye, S.T., Huang, Y., **Lekic, V.**, McDonough, W.F., and O. Šrámek (2015), Geo-neutrinos and Earth Models, *Physics Procedia,* **61**: 310:318, doi:10.1016/j.phpro.2014.12.050.

II.E. Conferences, Workshops, and Talks

II.E.1 Keynotes

2013/6/1 Gordon Research Seminar, Mt. Holyoke, MA. Title: "New mantle structures imaged using full waveform SEM-based tomography"

2013/6/4 Gordon Research Conference, Mt. Holyoke, MA. Title: "A long period view of LLSVPs"

2013/6/19 COMPRES annual meeting, Keynote speaker, Lake Geneva, WI. Title: "Emerging consensus on large scale shear wave speed structure in the mantle"

2014/7/7 Cooperative Institute for Dynamic Earth Research (CIDER), Kavli Institute for Theoretical Physics, University of California, Santa Barbara, CA. (video) Title: "Seismology 1: Introduction to body waves, surface waves, seismic sources…"

2015/1/21 CSEDI Science Plan Workshop, University of California, San Deigo, CA. Title: "Seismological constraints on large and meso-scale structure of the lower mantle."

2015/10/5 Ocean Bottom Seismology Symposium, Vancouver, WA. Title: "Lithospheric structure offshore southern California from receiver functions."

II.E.2 Invited Talks

2011/3/25 Swiss Federal Institute of Technology, Zurich, Switzerland. Title: "Dramatic lithospheric thinning beneath rifted regions of Southern California"

2011/4/5 Ecole normale supérieure de Lyon / Université de Lyon, France. Title: "High Resolution Global Tomography of the Upper Mantle"

2011/4/20 Lamont Doherty Earth Observatory (LDEO), Columbia University, NY. Title: "Dramatic lithospheric thinning beneath rifted regions of Southern California."

2011/4/28 The Ohio State University, Columbus, OH. Title: "Dramatic lithospheric thinning beneath rifted regions of Southern California."

2011/9/13 Southern California Earthquake Center Annual Meeting, Palms Springs, CA. Title: "Dramatic lithospheric thinning beneath rifted regions of Southern California."

2011/9/21 EarthScope Institute: The Lithosphere-Asthenosphere Boundary, Portland, OR. Title: "Dramatic lithospheric thinning beneath rifted regions of Southern California."

2011/10/25 Équipe de Sismologie - Institut de Physique du Globe de Paris, France. Title: "Dramatic lithospheric thinning beneath rifted regions of Southern California."

2012/1/11 Geological Society of Washington, DC. Title: "Imaging the bottom of tectonic plates: Rifting in Southern California."

2012/4/4 Smithsonian Institution, Washington, DC. Title: "Lithospheric thinning beneath rifted regions of Southern California."

2012/4/11 Department of Terrestrial Magnetism, Carnegie Institution of Washington, DC. Title: "Lithospheric thinning beneath rifted regions of Southern California."

2012/4/12 Johns Hopkins University, Baltimore, MD. Title: "Lithospheric thinning beneath rifted regions of Southern California."

2012/5/18 Seismological Laboratory, California Institute of Technology, CA, Title: "Lithospheric structure beneath Southern California and the Rio Grande Rift."

2012/7/5 Symposium on the Study of the Earth's Deep Interior, Leeds, UK. Title: "A re-analysis of lower mantle tomographic models."

2012/9/20 Potomac Geological Society, Washington, DC. Title: "Imaging the bottom of tectonic plates: Rifting in Southern California."

2012/11/13 Colloque international en anglais, Collège de France, Paris, France (video).Title: "Cluster analysis of global lower mantle tomography: a new class of structure and implications for chemical heterogeneity."

2013/5/9 CIDER Attenuation Workshop, Lamont-Doherty Earth Observatory, Columbia University, New York, NY. Title: "Constraining thre frequency dependence of attenuation with free oscillations."

2013/9/20 Department of Geosciences, Princeton University, NJ. Title: "Seismic constraints on the deformation of continental lithosphere"

2013/10/9 Dept. of Earth & Space Sciences, University of California, Los Angeles, CA. Title: "Seismic constraints on the structure and deformation of continental lithosphere"

2014/1/13 Geological and Planetary Sciences Division, Caltech, CA. Title: "Seismic constraints on the structure and deformation of continental lithosphere"

2014/1/22 Department of Geology and Geophysics, Yale University, New Haven, CT. Title: "Seismic constraints on the structure and deformation of continental lithosphere"

2014/3/20 Department of Geology and Environmental Sciences, James Madison University, Harrisonburg, VA. Title: "Seismic constraints on the structure and deformation of continental lithosphere"

2014/7/1 Geoneutrino Working Group Meeting at the Kavli Institute for Theoretical Physics, Santa Barbara, CA. Title: "Properties of LLSVPs and ULZVs"

2015/1/22 Department of Geophysics, School of Earth, Energy, and Environmental Sciences, Stanford University, Palo Alto, CA. Title: "Seismic Constraints on Lithospheric Structure and Deformation."

2015/2/26 Department of Geological Sciences, University of Florida, Gainesville, FL. Title: "Seismic constraints on the structure and deformation of continental lithosphere."

2015/3/12 Distinguished Lecture Series seminar, Department of Geology and Geophysics, University of Utah, Salt Lake City, UT. Title: "Seismic constraints on the structure and deformation of continental lithosphere"

2015/4/9 Montana Bureau of Mines and Geology, Montana Tech, Butte, MT. Title: "Seismic constraints on the structure and deformation of continental lithosphere"

2015/4/22 Department of Geology, Wayne State University, Detroit, MI. Title: "Seismic constraints on the structure and deformation of continental lithosphere"

2015/9/10 Packard Fellows Meeting, Monterey, CA. Title: "Imaging the Earth's interior with seismic waves"

2015/10/7 Department of Geological Sciences, University of Oregon, Eugene, OR. Title: "Seismic constraints on the structure and deformation of continental lithosphere"

2015/11/6 Department of Geosciences, Virginia Tech, Blacksburg, VA. Title: T.B.D.

II.E.8 Non-Refereed Abstracts

NB: Underlined names represent undergraduate / graduate students under direct supervision.

1. Burdick, S., **V. Lekic**, Global traveltime tomography with USArray Transportable Array Data (Invited), *EarthScope National Meeting,* Stowe, VT, June 15-17, 2015.
2. Gao, C., Olugboji, T., and **V. Lekic**, Development of a transdimensional Bayesian joint inversion and its application of USArray ambient noise tomography, *EarthScope National Meeting,* Stowe, VT, June 15-17, 2015.

3. Olugboji, T., Schnurr, J., Gao, C., Cunningham, E., Burdick, S., V. Lekic, McDonough, W., R. Rudnick, The Composition of the US Continental Crust: A Transdimensional Approach, *Gordon Research Conference, Interior of the Earth*, South Hadley, MA, June 7-12, 2015.
4. Cottaar, S., and **V. Lekic,** Morphology of large and meso-scale slow provinces in the lowermost mantle, *European Geophysical Union General Assembly 2015, EGU2015-6575, Vienna, Austria*, April 12-17, 2015.
5. **Lekic, V.,** Cottaar, S., J. Matas, Large- and meso-scale structure of Low Shear Velocity Provinces (Invited), *AGU Fall Meeting, DI33B-05,* 2014.
6. Ford, H., Hopper, E., Fischer, K., **Lekic, V.**, Selway, K., P. Kelemen, Seismic constraints on the evolution of the continental lithosphere-asthenosphere boundary system (Invited), *AGU Fall Meeting, DI43B-02,* 2014.
7. Rudolph, M., **Lekic, V.**, C. Lithgow-Bertelloni, Transdimensional inversion for Earth's radial mantle viscosity profile, *AGU Fall Meeting, S51C-03*, 2014.
8. Gao, C., **V. Lekic**, Transdimensional Bayesian joint inversion of complementary seismic observables with realistic data uncertainties, *AGU Fall Meeting, S53A-4489*, 2014.
9. Cunningham, E., **V. Lekic**, New seismic observables constrain structure within the continental lithosphere, *AGU Fall Meeting, T32A-03*, 2014.
10. Waszek, L, Arredondo, K., Finkelstein, G., Kellogg, L., **Lekic, V.**, Li, M., Lithgow-Bertelloni, C., Romanowicz, B., Schmerr, N., Rudolph, M., Townsend, J., Xing, Z., F. Yang, Slab stagnation in the lower mangle: A multidisciplinary investigation, *AGU Fall Meeting, DI53A-4359*, 2014.
11. Schmerr, N., Courtier, A., Hier-Majumder, S., **V. Lekic**, Using seismic discontinuities to image melt and dynamics in the sub-continental upper mantle, *AGU Fall Meeting, DI41B-4326,* 2014.
12. Ballmer, M., **Lekic, V.**, G. Ito, Simultaneous generation of superpiles and superplumes in the lower mantle, *AGU Fall Meeting, DI33B-08*, 2014.
13. **Lekic, V.,** French, S.W., B.A. Romanowicz, Low velocities in the oceanic upper mantle and their relation to plumes: insights from SEM-based waveform tomography, *AGU Fall Meeting, DI21A-2267*, 2013.
14. Cottrell, E., **Lekic, V.**, Davis, F.A., K.A. Kelley, Redox controls on the asthenosphere, *AGU Fall Meeting, DI31B-03*, 2013.
15. Reeves, Z.A., **Lekic, V.**, Weeraratne, D.S., M.D. Kohler, Constraining Lithospheric Structure across the California Borderland using Receiver Functions, *AGU Fall Meeting, S31A-2343*, 2013.
16. Dziewonski, A.M., **Lekic, V.**, B.A. Romanowicz, Planet Within a Planet: Implications of Principal Component Analysis of Global Tomographic Models, *AGU Fall Meeting, DI32A-01*, 2013.

17. Browning, J.M., Courtier, A.M., Jackson, M.G., **Lekic, V.**, Hart, S.R., Collins, J.A., Crust and Mantle Structure Beneath the Samoan Islands, *AGU Fall Meeting, DI41A-2317*, 2013.
18. Matas, J., **V. Lekic**, Identification of Distinct Large-Scale Regions in the Deep Mantle with Thermally Activated Attenuation, *AGU Fall Meeting, DI41B-02*, 2013.
19. Fischer, K.M., H.A. Ford, **V. Lekic**, Constraining deformation at the lithosphere-asthenosphere boundary beneath the San Andreas fault with Sp phases, *AGU Fall Meeting, T51H-04,* 2013.
20. Santiago A. Triana, S.A., Zimmerman, D.S., Nataf, H.-C., Thorette, A., Cabanes, S., Roux, P., **Lekic, V.,** D. P. Lathrop, Helioseismology in a bottle: an experimental technique, *AGU Fall Meeting, GP54A-02*, 2013.
21. Nicholas C. Schmerr, N.C., Brunt, K.M., Cammarano, F., Hurford, T.A., **Lekic, V.,** Panning, M.P., Rhoden, A., J. M. Sauber, Seismometers on Europa: Insights from Modeling and Antarctic Ice Shelf Analogs, *AGU Fall, Meeting, P54A-01,* 2013.
22. **Lekic, V.,** Fischer, K.M. Contrasting Lithospheric Signatures Across the Western United States Revealed by Sp Receiver Functions, *EarthScope National Meeting*, 2013.
23. **Lekic, V.,** Matas, J. Constraining lateral temperature and attenuation variations in the lower mantle, *AGU Fall Meeting, DI44A-02*, 2012.
24. Barron, J., French, S.W., **Lekic, V.**, Romanowicz, B. Towards a global 3D upper mantle attenuation model using SEM, *AGU Fall Meeting, S41A-2377*, 2012.
25. Cunningham, E.E., Frassetto, A., **Lekic, V.** Obtaining interpretable receiver functions to study lithospheric structure in the central US, *AGU Fall Meeting, T53C-2722*, 2012.
26. Dziewonski, A.M., **Lekic, V.**, Romanowicz, B. Congruence of 3-D whole mantle models of shear velocity, *AGU Fall Meeting, DI52A-08,* 2012.
27. Ford, H.A., Fischer, K.M., **Lekic, V.** Significant variations in the strength of the lithosphere-asthenosphere boundary across the California plate boundary, *AGU Fall Meeting, T53D-03*, 2012.
28. French, S.W., **Lekic, V.**, Romanowicz, B. Spectral-element global waveform tomography: A second-generation upper-mantle model, *AGU Fall Meeting, S34B-07,* 2012.
29. Hopper, E., Ford, H.A., Fischer, K.M., **Lekic, V.,** Fouch, M. How has magmatism in the northwest United States affected the lithosphere? Insights from Sp Receiver Funcionts, *AGU Fall Meeting DI21A-2349*, 2012.
30. Kandell, A., **Lekic, V.**, Stine, A. Antarctic microseism: relationship with sea ice extent and the southern annual mode, *AGU Fall Meeting, S53C-2524,* 2012.
31. Kolb, J., **Lekic, V.** A robust deconvolution method based on transdimensional hierarchical Bayesian inference, *AGU Fall Meeting, S43A-2465,* 2012.
32. Romanowicz, B., French, S.W., **Lekic, V.** Low velocities in the oceanic upper mantle and their relation to plumes: new insights from SEM-based Waveform tomography, *AGU Fall Meeting DI44A-06*, 2012.

33. Sramek, O., McDonough, W.F., Kite, E.S., **Lekic, V.**, Dye, S., Zhong, S. Geoneutrino perspective on Earth's heat budget and mantle structure, AGU Fall Meeting DI51B-02, 2012.

34. Weeraratne, D.S., Parmentier, E.M., **Lekic, V.** Viscous fingering in the Earth's mantle beneath western North American and the Pacific plate, *AGU Fall Meeting DI21A-2344*, 2012.

35. Maleski, J., Parker, E.H., Hawman, R.B. Fischer, K.M., Wagner, L.S., **Lekic, V.** Receiver function analysis of variations in crustal thickness and Vp/Vs across the Southern Appalachians from SESAME broadband data, *Geological Society of America, Abstracts with Programs,* v. 44, no. 4, p.8, 2012.

36. French, S.W., **Lekic, V.,** Romanowicz, B.A. Toward global waveform tomography with the SEM: improving mantle images, *AGU Fall Meeting*, 2011.

37. **Lekic, V.**, Fischer, K.M. Lithospheric structure of the Rio-Grande Rift and the Colorado Plateau, *AGU Fall Meeting*, 2011.

38. Parker, E.H., Hawman, R.B., Fischer, K.M., Wagner, L., **Lekic, V.** Preliminary results from the Southeastern Suture of the Appalachian Margin Experiment (SESAME): Initial observations and a comparison between vault and direct-burial stations, *AGU Fall Meeting*, 2011.

39. Dziewonski, A.M., **Lekic, V.**, Cottaar, S., Romanowicz, B.A. Topology of the mantle Abyssal Layer: Superplumes big and small, *AGU Fall Meeting*, 2011.

40. Durand, S., Ford, S.R., Matas, J., Romanowicz, B.A., Ricard, Y., Montagner, J.-P., **Lekic, V.** Heterogeneous lower mantle shear attenuation from ScS-S differential t* measurements via instantaneous frequency under Central America, *AGU Fall Meeting*, 2011.

41. Yuan, H., French, S.W., **Lekic, V.**, Romanowicz, B.A. Global azimuthal anisotropy structure of the upper mantle, *AGU Fall Meeting*, 2011.

42. **Lekic, V.**, French, S. W., Fischer, K. M. Lithospheric Structure Beneath the Salton Trough/Gulf of California Region from Sp Receiver Functions, *AGU Fall Meeting*, 2010.

43. Dziewonski, A. M, **Lekic, V.**, Houser, C., Matas, J., Romanowicz, B. Developing regional seismological reference models for mineral physics interpretations. *AGU Fall Meeting*, 2010.

44. Fischer, K. M., Ford, H. A., **Lekic, V**., Abt, D. L. The lithosphere-asthenosphere boundary beneath North America and Australia (Invited). *AGU Fall Meeting*, 2010.

45. Durand, S., Ford, S. R., Matas, J., **Lekic, V.**, Romanowicz, B., Heterogeneous lower mantle shear attenuation from ScS-S differential t* measurements via instantaneous frequency, *AGU Fall Meeting*, 2010.

46. French, S. W., **Lekic, V.**, Romanowicz, B. Toward global waveform tomography of the whole mantle using SEM: Efficient simulation of the global wavefield using a homogenized crust, *AGU Fall Meeting*, 2010.

47. Panning, M. P., **Lekic, V.**, Romanowicz, B. The importance of crustal corrections in global anisotropic modeling, *AGU Fall Meeting*, 2009.

48. Dziewonski, A. M., **Lekic, V.**, Romanowicz, B. Deep Earth Geopoetry: a permanent megastructure above the core-mantle boundary? , *AGU Fall Meeting*, 2009.

49. **Lekic, V.** and B. Romanowicz, Joint inversion of long period waveform and surface wave dispersion data for crust and mantle structure using the Spectral Element Method, *AGU Fall Meeting*, 2009.

50. Arevalo, R., Ghosh, A., **Lekic, V.**, Tsai, V., Dziewonski, A., Kellogg, L., Matas, J., Panero, W. , Romanowicz, B. Degree-2 in the transition zone and near the CMB: bottom up tectonics? *AGU Fall Meeting,* 2008.

51. Dou, S., **Lekic, V.**, Romanowicz, B. Smooth crustal models derived from surface wave dispersion data for waveform tomography based on the spectral element method. *AGU Fall Meeting,* 2008.

52. **Lekic, V.** and B. Romanowicz. Global upper mantle radially anisotropic model developed using the spectral element method. *AGU Fall Meeting*, 2008.

53. Matas, J., **Lekic, V.**, Panning, M., Romanowicz. B. Frequency dependence of attenuation: new measurements from normal modes and their geophysical implications. *AGU Fall Meeting*, 2008.

54. Dziewonski, A., Kustowski, B., **Lekic, V.,** Romanowicz, B. Seismic tomography and structure of the transition zone. *AGU Fall Meeting,* 2007.

55. **Lekic, V.** and B. Romanowicz. Finite frequency upper mantle tomography using the spectral element method. *AGU Fall Meeting,* 2007.

56. **Lekic, V.** and B. Romanowicz. Applying the spectral element method to tomography: crustal effects. *Wilhelm and Else Heraeus Seminar: Density, Temperature and Elastic Constants of Earth's Mantle II, Linderhof, Germany, 2007.*

57. **Lekic, V.**, Reif, C., Dziewonski, A., Sheehan, A., van Summeren, J. Seismic constraints on slab interaction with the transition zone. *AGU Fall Meeting,* 2006.

58. Dziewonski, A., **Lekic, V.**, Kustowski, B., Romanowicz, B. Transition zone as a boundary layer. *AGU Fall Meeting,* 2006.

59. **Lekic, V.** and B. Romanowicz. Applying the spectral element method to model 3D attenuation in the upper mantle. *AGU Fall Meeting,* 2006.

60. Rhie, J., **Lekic, V.**, Romanowicz, B. An assessment of surface wave and normal mode spheroidal Q models by forward modeling of Rayleigh waves. *AGU Fall Meeting,* 2006.

61. **Lekic, V.**, Capdeville, Y., Romanowicz, B. Towards a high resolution 3D attenuation model of the upper mantle. *AGU Fall Meeting,* 2005.

62. Manga, M., Panning, M., **Lekic, V.**, Cammarano, F., Romanowicz, B. Implications of Europa's broadband seismic response calculated from physically consistent models. *AGU Fall Meeting,* 2005.

63. Reif, C., Dziewonski, A., Ireland, T., Hammond, J., **Lekic. V.** Characterizing deep (> 500 km) earthquake regions to investigate the fate of subducting slabs. *AGU Fall Meeting,* 2004.

64. **Lekic, V.**, Dunn, R., Toomey, D., Detrick, R. Shallow mantle and crustal structure beneath the Mid-Atlantic Ridge (35N): melt supply and crustal construction. *AGU Fall Meeting,* 2004.

65. Dunn, R., **Lekic, V.**, Toomey, D., Detrick, R. Imaging the crust and uppermost mantle beneath the Mid-Atlantic Ridge (35N) with P-wave tomography. *EGS - AGU - EUG Joint Assembly,* 2003.

II.E.12 Workshops

Chief organizer for Cooperative Institute for Dynamic Earth Research (CIDER) workshop on the development of a three-dimensional reference seismic Earth model, held at the University of Maryland, College Park, April 26-27, 2013.

Co-organizer of Cooperative Institute for Dynamic Earth Research (CIDER) workshop on tying observational and experimental investigations of seismic attenuation, held at the Lamont-Doherty Earth Observatory, Columbia University, New York, May 9-11, 2013

II.J Sponsored Research

II.J.1 Grants

1. Co-PI on "Constraining Europa's Interior Structure and Rotation History through Tidal Tectonic Modeling" funded by National Aeronautics and Space Administration Outer Planets Research in the amount of $13,434 during 6/2016 – 5/2017.
2. Principal Investigator on "Collaborative Research: Developing a Three-Dimensional Seismic Reference Earth Model (REM-3D) in Collaboration with the Community" funded by the National Science Foundation Geophysics Program in the amount of $345,000 during 7/2014 – 6/2017.
3. Principal (Sole) Investigator on "CAREER: Seismic Imaging of Large-Scale Structure in the Lithosphere and the Core-Mantle Boundary Region" funded by the National Science Foundation Geophysics Program and the Division of Advanced Cyberinfrastructure (ACI) Program in the amount of $647,000 during 7/2014 – 6/2019.
4. Co-Investigator on "CSEDI Collaborative Research: Investigating the Nature of the Subcontinental Upper Mantle" funded by the National Science Foundation Collaborative Studies of the Earth's Deep Interior Program in the amount of $259,998 during 9/2014-8/2016.
5. Principal Investigator on Working Group proposal "Development of a 3D seismic reference Earth model" funded by the Collaborative Institute for Dynamic Earth Research in the amount of $20,000 during 2013.
6. Co-investigator on Working Group proposal "On the Interpretation of Upper Mantle Seismic Attenuation Measurements" funded by the Collaborative Institute for Dynamic Earth Research in the amount of $20,000 during 2013.

II.K Fellowships, Gifts, and Other Funded Research

2014-2019	Packard Foundation Fellowship for Science and Engineering - $875,000
2010-2012	National Science Foundation Postdoctoral Fellowship
2006-2009	National Science Foundation Graduate Research Fellowship
2004-2006	Berkeley Fellowship, University of California, Berkeley

II.O Other Research/Scholarship/Creative Activities

Co-organized web-based seminar on identifying and discussing major scientific targets in global seismology for the Incorporated Research Institutions for Seismology *Wavefields* Initiative (August 22nd, 2014).

Co-organized web-based seminar on identifying and discussing major scientific targets in regional seismology for the Incorporated Research Institutions for Seismology *Wavefields* Initiative (September 8th, 2014).

III. TEACHING, MENTORING, AND ADVISING

III.A Courses Taught

GEOL 200: Earth's Fury

This I-Series course is built around the questions of how scientists study hazards and how societies prepare for these rare but dramatic events? In a very interactive class environment and through hands-on exercises and reading discussions in sections, students study the science behind earthquakes and volcanoes, how it guides monitoring, forecasting, prevention, and response, and the cultural and ethical aspects of these events.
Taught in: Fall 2014, enrollment 120.

GEOL 447 & 647: Observational Geophysics

This course aims to introduce advanced undergraduate students and beginning graduate students to instrument design/performance, signal processing, data analysis and inverse theory in geophysics. Students learn how geophysical instruments work, how to relate their output to physical quantities, how to identify and apply a variety of signal processing and data analysis techniques. Students learn to formulate, solve and evaluate geophysical inverse problems and develop MATLAB programming skills.

The format of the course is unusual: lectures alternate with in-class MATLAB-based practicals, in which students learn how to apply and implement the ideas they learn in the lectures to actual geophysical datasets.
Taught in: Fall 2012, enrollment 10; Fall 2013, enrollment 17; Fall 2014, enrollment 5.

GEOL 457 & 657: Seismology and Seismic Wave Propagation

This course aims to introduce advanced undergraduate students and beginning graduate students to earthquakes and seismic wave generation and propagation. Students learn about stress and strain, the seismic wave equation, methods for calculating wave

propagation through layered and heterogeneous media, imaging of shallow structure using seismic reflection, converted-wave and tomographic imaging of global structure. The final third of the course focuses on describing seismic sources – earthquakes, tremor, slip – understanding rate-and-state friction and ways of characterizing seismic hazard. Taught in: Spring 2013, enrollment 6; Spring 2014, enrollment 6.

2010, 2011 Co-Instructor, *Solid Earth Geophysics* – Taught introduction to geophysics to advanced undergraduates and beginning graduate students with Prof. D.W. Forsyth, Dept. of Geological Sciences, Brown University

III.B Teaching Innovations

III.B.3 Software, Applications, Online Education, etc.

2014 Developed MATLAB-based computational seismic tomography tutorial for the NSF-funded CIDER Summer Program at the Kavli Institute for Theoretical Physics. Graduate students from the United States and abroad were taught, in a hands-on fashion, about the resolving power and limitations of global seismic tomography.

III.B.5 Course or Curriculum Development

2012 Designed, developed and taught a new course *Observational Geophysics* in the Department of Geology, which is eligible for meeting the geophysics requirement for majors and geophysics minors. The course incorporates 12 in-class, hands-on, MATLAB practicals in which students apply the concepts taught during lectures to actual geophysical datasets.

2013 Developing curriculum for GEOL 457/657 – Seismology / Seismic Wave Propagation (offered Spring 2013, 2014), which course aims to introduce advanced undergraduate and beginning graduate students to the study of elasticity, seismic wave propagation, imaging used in seismic exploration, and the characterization of earthquakes.

III.C. Advising: Research

III.C.1 Undergraduate

Senior thesis students (GEOL 393/394):

Fall 2012 and Fall 2013, Alan Cinsavich – "Intraplate seismicity of the Gorda Plate"

Fall 2013 and Fall 2014, Adele Lu – "Removing air-pressure noise from broadband seismic data: application to Antarctica as an analog for the *NASA Insight* Mars Lander"

Fall 2015, Sutton Chiorini – "Swarm-like seismicity in Northern California"

Research advisor to:

Nicholas Anuforoh, Spring 2013

Rannie Ayoub, Spring 2014

Benjamin Belzer, Spring 2014

Sutton Chiorini, Fall 2013 – present

Alex J. Kandell, Spring 2012 – Spring 2013: After graduating from the University of Maryland, College Park, Alex enrolled in a Master's program in seismology at Rice University.

Jesse M. Kolb, Spring 2012 – Summer 2013: After graduating from the University of Maryland, College Park, Jesse is now a Master's student in exploration seismology at the University of Calgary.

Brendan Lockhart, Fall 2012 – present

Anthony Mautino, Spring 2014 – Summer 2014: After graduating from the University of Maryland, College Park, Anthony is now a Master's student in Geology at the University of Maryland, College Park.

Michael Ream, Spring 2012, Fall 2013 – Spring 2014

Julie Schnerr, Spring 2015 – present

Andrew Will, Fall 2012 – Spring 2013

Erin Cunningham – Incorporated Research Institutions for Seismology summer 2012 intern from Tulane University. Now, Ph.D. student at the University of Maryland, College Park

Jeffrey Gay – Montana State University summer 2012 and 2013 intern. Jeff is currently applying for Ph.D. programs in Geophysics.

III.C.2 Master's

Member of Master's Committees

Zachary Reeves	(M.S.) Qualifying Exam 2013
Zachary Reeves	(M.S.) Thesis Defence 2014

Primary research advisor to Mr. Zahary Reeves, who is now employed by the United States Geological Survey National Earthquake Information Center.

Primary research advisor to Mr. Anthony Mautino (M.S.).

III.C.3 Doctoral

Primary research advisor to Ms. Erin Cunningham (Ph.D.), Mr. Chao Gao (Ph.D.), and Ms. Karen Pearson (Ph.D.)

III.E Advising: Other than Research Direction

III.E.2 Master's

Member of Master's Committees

Jeremy Banker	(M.S.) Qualifying Exam 2014

Anna Statkiewicz	(M.S.) Qualifying Exam 2014
Jodi Gaeman	(M.S.) Qualifying Exam 2011
Anna Statkiewicz	(M.S.) Thesis Defence 2014

III.E.2 Doctors

Member of Doctoral Committees

Hailong Bai	(Ph.D.) Qualifying Exam 2013
Kevin J. Miller	(Ph.D.) Qualifying Exam 2012
Stephanie Johnston	(Ph.D.) Qualifying Exam 2012
Lisa S. Walsh	(Ph.D.) Thesis Defence 2013
Kevin J. Miller	(Ph.D.) Thesis Defence 2015
Stephanie Johnston	(Ph.D.) Thesis Defence 2015
Carolyn Planck	(Ph.D.) Qualifying Exam 2015

IV. SERVICE

IV.A. Editorships, Editorial Boards, and Reviewing Activities

IV.A.3 Reviewing Activities for Journals and Presses

Science, *Nature Geoscience, Geophysical Journal International*, *Geophysical Research Letters*, *Physics of Earth and Planetary Interiors*, *Journal of Geophysical Research, Geochemistry*, *Geophysics*, *Geosystems, Earth and Planetary Science Letters, Eos*.

IV.A.4 Reviewing Activities for Agencies and Foundations

National Science Foundation, Division of Earth Sciences (EAR): Geophysics Program, EarthScope Program, Education and Human Resources Program, Geoinformatics Program.

National Science Foundation, Division of Earth Sciences (EAR), Geophysics Program Review Panel Member, Spring 2015.

National Science Foundation, Division of Ocean Sciences (OCE): Marine Geology and Geophysics Program.

National Science Foundation, Faculty Early Career Development Program (CAREER).

Swiss National Science Foundation, Division of Mathematics, Physical and Engineering Sciences.

European Research Council, Starting Grant program

Academia Sinica (Taiwan), Career Development Award

IV.B. Committees, Professional & Campus Service

IV.B.1 Campus Service – Department

Geology Curriculum Review Committee (2015)

Search Committee for Assistant Professor in Geophysics (2013-2014)

Faculty Merit Review Committee (2013-present)

Ad Hoc Award Committee (2012-present)

Graduate Admissions Committee (2012-2013)

Departmental Colloquium Sole Organizer (Fall 2014, Spring 2015, Fall 2015)

Search Committee for Department Chair (2015)

IV.B.2 Campus Service – College

Member Representative of the University of Maryland, College Park to the Incorporated Research Institutions for Seismology Consortium (2012 – present)

IV.B.2 Campus Service – University

Member of Review Panel for Packard Foundation – Fellowships for Science and Egineering (2015)

IV.B.6 Offices and Committee Memberships

2014	Incorporated Research Institutions of Seismology Undergraduate Internship Program Selection Committee
2014	Councilmember at Large, Geological Society of Washington
2014	Membership Committee, Geological Society of Washington
2013-2015	Incorporated Research Institutions of Seismology Standing Committee on the Global Seismic Network.
2013	Seismology Section Program Committee chair for the American Geophysical Union Fall Meeting
2012	Seismology Section Program Committee co-chair for the American Geophysical Union Fall Meeting

V. AWARDS, HONORS AND RECOGNITION

V.1 Research Fellowships, Prizes and Awards

2014-2015	EarthScope Speaker Series Speaker Website with more information
2014-2019	Packard Foundation Fellowship for Science and Engineering Website with more information.
2014-2019	National Science Foundation CAREER Award Website with more information.
2013	Charles F. Richter Award, Seismological Society of America Website with more information.
2001-2002	John Harvard Scholarship, Harvard University Website with more information.
2001	Detur Prize, Harvard University Website with more information.