

Bradley Paul Lipovsky

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CURRENT POSITION

Research Associate, Earth and Planetary Sciences, Harvard University

EDUCATION

2018 **Postdoctoral Fellow**, Earth and Planetary Sciences, Harvard University
2017 **Doctor of Philosophy**, Geophysics, Stanford University,
2011 **Master of Science**, Earth Science, University of California–Riverside
2008 **Bachelor of Arts**, Mathematics, Cornell University
2004 **Associate of Arts**, Mathematics, Lake Tahoe Community College

PUBLICATIONS

8. Podolskiy, E.A., Walter, F., Heimann, S., Ripepe M., **Lipovsky, B.P.**, Sugiyama, S., Seguinot, J., Genco, R., and Funk, M., “Volcanic-like long-period seismic events at a tidewater glacier in Greenland”. Submitted *J. Geophys. Res.* June 2018.
7. Schöpa, A., Chao, W., **Lipovsky, B.P.**, Hovius, N., White, R. S., Green, R. G., Turowski, J. M. Dynamics of the Askja Caldera July 2014 landslide from seismic signal analysis: precursor, motion and aftermath (2018). *Earth Surface Dynamics*, Special issue “From Process to Signal - Advancing Environmental Seismology.” <https://doi.org/10.5194/esurf-2017-68>
6. **Lipovsky, B.P.** (2018), “Ice shelf rift propagation and the mechanics of wave-induced fracture”. *J. Geophys. Res. Oceans* <http://dx.doi.org/10.1029/2017JC013664>
5. **Lipovsky, B.P.**, and Dunham, E. M. (2017), “Slow-slip events on the Whillans Ice Plain, Antarctica, described using rate-and-state friction as an ice stream sliding law”. *J. Geophys. Res. Earth Surface* <http://dx.doi.org/10.1002/2016JF004183>
4. Mordret, A., Mikesel, D., Harig, C., **Lipovsky, B. P.** , Prieto, G. A. (2016) “Monitoring southwest Greenland’s ice sheet melt with ambient seismic noise”. *Science Advances*. <http://dx.doi.org/10.1126/sciadv.1501538>
3. **Lipovsky, B.P.**, and Dunham, E.R. (2016), “Tremor during ice stream stick-slip”. *The Cryosphere*. <http://dx.doi.org/10.5194/tc-10-385-2016>
2. **Lipovsky, B.P.**, and Dunham, E.R. (2015), “Vibrational modes of hydraulic fractures: Inference of fracture geometry from resonant frequencies and attenuation”. *J. Geophys. Res.* <http://dx.doi.org/10.1002/2014JB011286>
1. Gonzalez A., Gonzalez-Garcia J.J., Sandwell, D.T., Fialko, Y., Agnew, D.C., **Lipovsky, B.P.**, Fletcher, J.M., Nava-Pichardo, F.A. (2014) GPS coseismic and postseismic surface

displacements of the El Mayor-Cucapah earthquake. *J. Geophys. Res.* <http://dx.doi.org/10.1002/2013JB010193>

FIELD WORK

- 2015 “High resolution heterogeneity at the Base of Whillans Ice Stream and its Control on Ice Dynamics”, Whillans Ice Stream, West Antarctica
2012 “Observation of icefall seismicity”, Juneau Ice Field, Alaska
2010-11 Rapid postseismic deployment following the 2010 April 04 El Mayor-Cucapah earthquake, Mexicali, Mexico.

HONORS, FELLOWSHIPS, AND AWARDS

- 2017 Early Career Scientist Outstanding Presentation Award, WCRP/IOC Conference on Regional Sea Level Changes and Coastal Impacts
2016- Department Postdoctoral Fellowship, Department of Earth and Planetary Sciences, Harvard University
2011-12, 14-15 Mannon Family Fellowship, Department of Geophysics, Stanford University
2010 AGU Outstanding Student Paper Award

TEACHING

- 2018 **Guest Lecturer**, Harvard EPS 203 , “Earthquakes and Faulting”
2013-2016 **Teaching Assistant and Guest Lecturer**, Stanford Geophysics 120/220, “Ice, Water, Fire”

Ice, Water, Fire is an introductory graduate/undergraduate course that explores the application of continuum mechanics to problems in glaciology, oceanography, and volcanology. Over four years of involvement, I have presented lectures on every major course topic.

ADVISING

Graduate Students

- 2018 **Seth Olinger**, Harvard University, Ice shelf seismology.

Undergraduate Students

- 2017 **Vladislav Sevostianov**, Semester-long internship, Harvard University. Laboratory experiments on the frictional properties of ice.
2015 **Janine Birnbaum**, Summer internship, Stanford University. Research focusing on finite element modeling of ice stream loading.
2014 **Dilia Olivo**, Summer internship, Stanford University. Research focusing on rapidly repeating stick slip motion in glaciers.

GRANTS AND FUNDING

2018	NVIDIA GPU Grant recipient for research in machine learning and glaciology.
2016-2018	Postdoctoral Fellowship in the Department of Earth and Planetary Sciences, Harvard University
2015	National Science Foundation, Division of Polar Programs Award #1542885. “Collaborative Research: Characterizing Brittle Failure and Fracture Propagation in Fast Ice Sliding with Dynamic Rupture Models based on Whillans Ice Stream Seismic/Geodetic Data,” Award amount \$210,000
2012	McGee Grant, Stanford School of Earth Sciences, “Field observation of icefall seismicity, Juneau Ice Field, Alaska,” Award amount \$5,000
2011	National Geographic Explorers Grant, “Glacial mass loading and the occurrence of solid-earth seismicity: can the variation of glacial weight turn seismicity on and off?” Award amount \$5,000

SERVICE

2018	Scientific Editor, <i>Annals of Glaciology</i> , Special Issue on Cryoseismology
2018	Convener, “Environmental seismology”, session at the Seismological Society of America.
2012-2018	Reviewer for <i>The Cryosphere</i> , <i>Geophysical Research Letters</i> , <i>Journal of Geophysical Research</i> , <i>Science Advances</i> , <i>Nature Communications</i> , the National Science Foundation, the United States Geological Survey (Internal Review)
2016	Participant, United States Ice Drilling Program, Science Advisory Board Meeting
2015	Student Member, Cryosphere Faculty Search Committee, Department Geophysics, Stanford
2014	Student presentation judge, Stanford School of Earth Science Research Review
2013	Convener and chair, “Seismicity in the cryosphere”, session at the Annual Meeting of the American Geophysical Union
2011-2012	Member, Graduate Student Advisory Council, Department of Geophysics
2010-2012	Student Representative, American Geophysical Union, Geodesy Section
2009-2010	University of California–Riverside Earth Science Graduate Association, President

INVITED PRESENTATIONS

- 2018 Grands Séminaires ISTerre, Institut des Sciences de la Terre, Université Grenoble Alpes
- 2018 Institut des Géosciences de l'Environnement, Université Grenoble Alpes
- 2017 Brown University Department of Earth, Environmental and Planetary Sciences, Department Colloquium
- 2017 Lamont Doherty Earth Observatory, Seismology Seminar
- 2016 Massachusetts Institute of Technology, Friday Informal Seminar Hour
- 2016 University of Kansas
- 2016 University of Washington, Glaciology Lunch
- 2015 University of California, Santa Cruz
- 2015 Massachusetts Institute of Technology, Friday Informal Seminar Hour
- 2014 American Geophysical Union Fall Meeting, Invited Presentation
- 2014 Scripps Institution of Oceanography, Institute of Geophysics and Planetary Physics, University of California–San Diego
- 2014 California Institute of Technology
- 2013 Earthquake Research Institute, University of Tokyo, Japan
- 2010 Southern California Earthquake Center Annual Meeting: Workshop on Transient Anomalous Strain Detection
- 2010 USGS Public Lecture Series Symposium at Pasadena City College
- 2009 Southern California Earthquake Center Annual Meeting: Workshop on Transient Anomalous Strain Detection