

# Bradley Paul Lipovsky

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Department of Earth and Planetary Science  
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## EDUCATION

2016-2019     **Postdoctoral Fellow**, Earth and Planetary Sciences, Harvard University  
2011-2016     **Doctor of Philosophy**, Geophysics, Stanford University,  
2009-2011     **Master of Science**, Earth Science, University of California–Riverside  
2004-2008     **Bachelor of Arts**, Mathematics, Cornell University  
2000-2004     **Associate of Arts**, Mathematics, Lake Tahoe Community College

## PUBLICATIONS

11. Sevostianov, S., **Lipovsky, B.P.**, Rubinstein, S., and Dillavou, S., Time Dependent Frictional Changes in Ice due to Contact Area Changes, In preparation for Geophysical Research Letters.
10. **Lipovsky, B.P.**, Brittle and elastic ice shelves, Part 2: Fracture mechanics. In preparation for JGR-Oceans.
9. **Lipovsky, B.P.**, Brittle and elastic ice shelves, Part 1: Wave Propagation. Submitted to JGR-Oceans, November 2017. <http://eartharxiv.org/a9vjb>.
8. **Lipovsky, B.P.**, Observed and theoretical constraints on the size of glaciers and ice sheets. In revision.
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. Submitted to Earth Surface Dynamics, Special issue “From Process to Signal - Advancing Environmental Seismology”, November 2017.
6. Podolskiy, E.A., Walter, F., Heimann, S., Ripepe M., **Lipovsky, B.P.**, Sugiyama, S., Seguinot, J., Genco, R., and Funk, M., “Long-period seismic events at a tidewater glacier in Greenland”. Submitted J. Geophys. Res. October 2017.
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. <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

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|---------|--|
| 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

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|---------|---|
| 2017    | Early Career Scientist Outstanding Poster 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                                  |
| 2014-15 | Mannon Family Fellowship, Department of Geophysics, Stanford University   |
| 2011-12 | Mannon Family Fellowship, Department of Geophysics, Stanford University   |
| 2010    | AGU Outstanding Student Paper Award   |

## TEACHING

- 2016            **Guest Lecturer**, Stanford Geophysics 120/220, “Ice, Water, Fire”  
2015            **Teaching Assistant**, Stanford Geophysics 120/220, “Ice, Water, Fire”  
2014            **Guest Lecturer**, Stanford Geophysics 120/220, “Ice, Water, Fire”  
2013            **Teaching Assistant**, 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

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

## GRANTS AND FUNDING

- 2016-2017      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

2012-2017	Reviewer for Geophysical Research Letters, Journal of Geophysical Research, Science Advances, Nature Communications, the National Science Foundation
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
2013-2014	President, Stanford Outdoors Education
2013	Convener and chair, “Seismicity in the cryosphere”, session at the Annual Meeting of the American Geophysical Union
2012-2013	President, Stanford Alpine Club
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

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
2014	Scripps Institution of Oceanography, Institute of Geophysics and Planetary Physics, University of California–San Diego
2014	California Institute of Technology
2014	Université Joseph Fourier, Grenoble, France
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