

LUCAS H. BEEM

University of Texas Institute of Geophysics
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EDUCATION

Ph.D., University of California, Santa Cruz	2013
<i>Flow Dynamics of the Whillans Ice Stream, West Antarctica: Implications for basal mechanics and subglacial hydrology</i>	
M.S., Ohio State University	2008
<i>Ice stream shear margin basal melting, West Antarctica</i>	
B.S., University of South Maine	2005

RESEARCH APPOINTMENTS

Post Doctoral Fellow, <i>Institute of Geophysics, University of Texas–Austin</i>	9/2015 –
Post Doctoral Scholar, <i>California Institute of Technology</i>	6/2014 – 6/2015
Graduate Research Associate, <i>University of California, Santa Cruz</i>	7/2008 – 12/2013
Graduate Research Associate, <i>Ohio State University</i>	8/2006 – 6/2008

TEACHING EXPERIENCE

Lecturer, <i>University of California, Santa Cruz</i>	
EART 3: Geology of the National Parks	Winter 2014
Associate, <i>University of California, Santa Cruz</i>	
EART 20: Environmental Geology	Winter 2013
Graduate Teaching Associate, <i>University of California, Santa Cruz</i>	
EART 148L: Glaciology	Spring 2012
EART 142L: Engineering Geology	Spring 2011
EART 5L: California Geology	Fall 2009
EART 20L: Environmental Geology	Winter 2009
Graduate Teaching Associate, <i>Ohio State University</i>	
GEOL 121: Dynamic Earth	Fall 2006
GEOL 100: Planet Earth	Fall 2006

SCHOLARSHIPS & AWARDS

CRISIS International Research and Exchange Program, <i>Danish Technical University</i>	2006
James A. Pendleton Award, <i>University of Southern Maine</i>	2004

FIELD EXPERIENCE

Whillans Ice Stream, Antarctica	11/2011-2/2012
Matanuska Glacier, Alaska	9/2011
Whillans Ice Stream, Antarctica	12/2009-2/2010
Juneau Ice Field, Alaska	6/2004-8/2004
Juneau Ice Field, Alaska	6/2003-8/2003

PEER-REVIEWED PUBLICATIONS

Published

- 4 **Beem, L. H.**, S. M. Tulaczyk, M. A. King, M. Bougamont, H. A. Fricker, and P. Christoffersen (2014), Variable deceleration of Whillans Ice Stream, West Antarctica, *J. Geophys. Res. Earth Surf.*, 119, 212-224, doi:10.1002/2013JF002958.
- 3 Tulaczyk, S. M., J. A. Mikucki, M. R. Siegfried, J. C. Priscu, C. G. Barcheck, **L. H. Beem**, A. Behar, J. Burnett, B. C. Christner, A. T. Fisher, H. A. Fricker, K. D. Mankoff, R. D. Powell, F. Rack, D. Sampson, R. P. Scherer, S. Y. Schwartz and the WISSARD Science Team (2014), WISSARD at Subglacial Lake Whillans, West Antarctica: scientific operations and initial observations, *Ann. Glaciol.*, 55(65), doi:10.3189/2014AoG65A009
- 2 Horgan, H. J., R. B. Alley, K. Christianson, R.W. Jacobel, S. Anandakrishnan, A. Muto, **L. H. Beem**, M. R. Siegfried (2013), Estuaries beneath ice sheets. *Geology*, 41(11), 1159-1162, doi: 10.1130/G34654.1.
- 1 **Beem, L. H.**, K. C. Jezek, and C. J. van der Veen (2010), Basal melt rates beneath Whillans Ice Stream, West Antarctica, *J. Glaciol.*, 56(198), 647 – 654, doi:10.3189/002214310793146241.

PAPERS IN CONFERENCE PROCEEDINGS

- 16 J. I. Walter, Z. Peng, S. M. Tulaczyk, **L. H. Beem** (2014), Ice Stream Slip Triggered by Distant Earthquakes, Abstract C53A-0277 presented at 2014 Fall Meeting, AGU, San Francisco, Calif. 15-19 Dec. (poster)
- 15 Tulaczyk, S. M., J. A. Mikucki, M. R. Siegfried, J. C. Priscu, C. G. Barcheck, **L. H. Beem**, A. Behar, J. Burnett, B. C. Christner, A. T. Fisher, H. A. Fricker, K. D. Mankoff, R. D. Powell, F. Rack, D. Sampson, R. P. Scherer, S. Y. Schwartz WISSARD at Subglacial Lake Whillans, West Antarctica: scientific operations and initial observations, Abstract C52A-07 presented at 2014 Fall Meeting, AGU, San Francisco, Calif. 15-19 Dec. (talk)
- 14 **Beem, L. H.**, S. M. Tulaczyk, M. A. King and H. A. Fricker (2014), Change in the Stick-Slip Cycle of Whillans Ice Stream, West Antarctica. West Antarctic Ice Sheet Initiative Annual Meeting, Julian, CA. (poster)
- 13 **Beem, L. H.** and S. M. Tulaczyk (2013), Modulation of Whillans Ice Stream Stick Slip Cycle: Loading Rate, Subglacial Hydrology and Slowdown, Abstract C33B-0726 presented at 2013 Fall Meeting, AGU, San Francisco, Calif. 9-13 Dec. (poster)
- 12 **Beem, L. H.** and S. M. Tulaczyk (2012), Continuous GPS Observations of Grounding Zone Dynamics of the Whillans Ice Stream, West Antarctica, Abstract C23C-0666 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec. (poster)
- 11 Siegfried, M. R., H. A. Fricker, **L. H. Beem**, K. Christianson, H. Horgan, S. M. Tulaczyk

- (2012), A comparison of grounding zone features and flexure dynamics in two geometries over a 12-hour tidal range. Abstract C43D-0660 presented at 2013 Fall Meeting, AGU, San Francisco, Calif. 3-7 Dec. (poster)
- 10 **Beem, L. H.**, S. M. Tulaczyk and M. A. King (2012), Variability of Whillans Ice Stream flow indicates increased basal resistance, West Antarctica. International Glaciological Society Symposium, Fairbanks, AK. (poster)
 - 9 **Beem, L. H.**, S. M. Tulaczyk and M. A. King (2012), Whillans Ice Stream flow speed insensitive to subglacial lake flood, West Antarctica. Scientific Committee on Antarctic Research Annual Meeting, Portland, OR. (oral)
 - 8 **Beem, L. H.**, S. M. Tulaczyk and M. A. King (2011), Whillans Ice Stream deceleration modulated by basal properties and wedge at grounding line. International Glaciological Society Symposium, La Jolla, CA. (poster)
 - 7 Mankoff, K. D., T. A. Russo, B. K. Norris, S. Hossainzadeh, **L. H. Beem**, J. I. Walter, S. M. Tulaczyk (2011), Kinects as sensors in earth science: glaciological, geomorphological, and hydrological applications. Abstract C41D-0442 presented at 2013 Fall Meeting, AGU, San Francisco, Calif. 5-9 Dec. (poster)
 - 6 **Beem, L. H.**, S. M. Tulaczyk, J. I. Walter, B. E. Smith, I. R. Joughin and H. A. Fricker (2010), Ice surface velocity changes from high-resolution GPS measurements on and around active subglacial lakes, Whillans and Mercer Ice Streams, West Antarctica. American Geophysical Union Annual meeting, San Francisco, CA. (poster)
 - 5 Tulaczyk, S. M., **L. H. Beem**, J. I. Walter, S. Hossainzadeh, K. D. Mankoff (2010), Ice Streams as the Critical Link Between the Interior Ice Reservoir of the Antarctic Ice Sheet and the Global Climate System - a WISSARD Perspective. Abstract C51B-04 presented at 2013 Fall Meeting, AGU, San Francisco, Calif. 9-13 Dec. (oral)
 - 4 **Beem, L. H.**, K. C. Jezek and C. J. Van der Veen (2008), Ice Stream Shear Margin Basal Melting, West Antarctica. EOS Transaction AGU 89(53), Fall Meeting Supplement, C42A-07. (oral)
 - 3 **Beem, L. H.**, K. C. Jezek and C. J. Van der Veen (2008), Spatial variations in basal melt rates, Whillans Ice Stream, West Antarctica, Center for Remote Sensing of Ice Sheet Annual review, Lawrence, KS. (oral)
 - 2 **Beem, L. H.** and K. C. Jezek (2007), Preliminary results of ice stream shear margin basal melt calculations. Midwest Glaciology Annual Meeting, Lawrence, KS. (oral)
 - 1 **Beem, L. H.**, K.T. Grannell, M. L. McCoog, J. L. Rich, H. F. Weiss and M. R. Zogby (2004), Mineralogy of very fine-grained glacio-marine sediments, coastal Maine. Geological Society of America Abstracts with Programs. 36: 155. (poster)

INVITED TALKS

Institute of Geophysics, University of Texas – Austin	Sept. 2015
University of California, Los Angeles - Tectonics Seminar	October 2014
NASA/NSF Workshop: Instrumentation for Polar Glaciology and Geophysics Research, Baltimore, MD	October 2014
California Institute of Technology – Tectonics Seminar	April 2013
Aberystwyth University, Dept. of Geography and Earth Science	October 2013
University of Leeds, Dept. of Earth and Environment	June 2013

PROFESSIONAL ACTIVITIES

Professional Memberships

American Geophysical Union	2009 -
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Reviewer for Publications

Reviewer for Earth and Planetary Science Letters	2014-2015
Reviewer for Journal of Glaciology and Journal of Geophysical Research	2013

Service

Organized Seismological Laboratory Brown Bag Seminar Series, Caltech	2014
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