

KATIE M. KERANEN
Earth and Atmospheric Sciences, Cornell University
2122A Snee Hall, Ithaca, NY 14853
Email: keranen@cornell.edu

(a) PROFESSIONAL PREPARATION

Michigan Technological University	Applied Geophysics	B.S., 2001
Stanford University	Geophysics	M.S., 2004
Stanford University	Geophysics	Ph.D., 2008
USGS Mendenhall Post-doctoral Fellowship	Geophysics	2008-2009

(b) APPOINTMENTS

7/2013-present	Assistant Professor, Cornell University
2009-6/2013	Assistant Professor, University of Oklahoma
2004-2006	Geophysicist, ExxonMobil Exploration Company

(c) RELATED PRODUCTS:

Keranen, K., Savage, H., Abers, G., and Cochran, E., Initiation of triggered earthquakes after 20 years of fluid injection: The November 2011 sequence in Oklahoma, *Geology*.

Sumy, D., Cochran, E.S., **Keranen, K.**, Wei, M., and Abers, G., (2014), Observations of static Coulomb stress triggering of the November 2011 M5.7 Oklahoma earthquake sequence, *J. Geophys. Res.*, doi: 10.1002/2013JB010612.

Refunjol, X.E., **Keranen, K.**, Le Calvez, J.H., and Marfurt, K.J., (2012), Integration of hydraulically-induced microseismic event locations with active seismic attributes: A North Texas Barnett shale case study, *Geophysics* **77**, 1-12.

van der Elst, N. J., Savage, H. M., **Keranen, K. M.**, and Abers, G. A., Enhanced remote earthquake triggering at fluid-injection sites in the Midwestern U.S., *Science*, 341, p. 164-167, doi: 10.1126/science.1238948.

Keranen, K., Weingarten, M., Abers, G., Bekins, B., and Ge. S., (2014), Sharp increase since 2008 induced by massive wastewater injection, *Science*, v. 345, p. 448-451.

OTHER PRODUCTS:

Mace, C., and **Keranen, K.**, (2012), Oblique fault systems crossing the Seattle Basin: Geophysical evidence for additional shallow fault systems in the central Puget Lowland, *J. Geophys. Res.*, 117, B03105, doi:10.1029/2011JB008722.

Ryan, H.F., Draut, A.E., **Keranen, K.**, and Scholl, D.W., (2012), Influence of the Amlia fracture zone on the evolution of the Aleutian Terrace forearc basin, central Aleutian subduction zone, *Geosphere*, GES00815.1, doi:10.1130/GES00815.1.

Holbrook, W.S., Kent, G., **Keranen, K.**, Johnson, P., Trehu, A., Tobin, H., Caplan-Auerbach, J., and Beeson, J., (2012), An Open-Participation, Open-Access Seismic Reflection Survey of the Cascadia Forearc, *EOS*, v. 93, NO. 50, p. 521, doi:10.1029/2012EO500002.

Li, J., Shillington, D.J., Becel, A., Nedimovic, M.R., Webb, S.C., Saffer, D.M., **Keranen, K.M.**, and Kuehn, H., Downdip variations in seismic reflection character: Implications for fault structure and seismogenic behavior in the Alaska subduction zone, *J. Geophys. Res. Solid Earth*, 120, 7883–7904, doi:10.1002/2015JB012338.

Keranen, K., Klemperer, S.L., Discontinuous and Diachronous Structure of the Main Ethiopian Rift: Implications for development of continental rifts, *EPSL*, January, 2008, v. 265, p. 96-111.

(d) SYNERGISTIC ACTIVITIES :

Speaker, World Bank/Brookings Institution “Shale Gas in Latin America Conference”, 2014
Member, IRIS-PASSCAL Standing Committee, 2011-2013
GeoPRISMS Distinguished Lecture Program lecturer, 2011-2013
USGS NEHRP Panel Member for AK-Pacific NW, September 2010

(e) COLLABORATORS AND OTHER AFFILIATIONS

a. Collaborators

Geoff Abers (Cornell University), Barbara Bekins (United States Geological Survey), Rebecca Bendick (University of Montana), Elizabeth Cochran (United States Geological Survey), Charles DeMets (University of Wisconsin), Joe Dufek (Georgia Tech), Kurt Feigl (University of Wisconsin), Lucy Flesch (Purdue University), Shemin Ge (University of Colorado – Boulder), Steven Holbrook (University of Wyoming), Austin Holland (Oklahoma Geological Survey), Chris Huber (Georgia Tech), Paul Johnson (University of Washington), Ole Kaven (United States Geological Survey), G. Randy Keller (University of Oklahoma), Graham Kent (University of Nevada – Reno), Justin Rubinstein (United States Geological Survey), Heather Savage (Lamont Doherty Earth Observatory), Donna Shillington (Lamont Doherty Earth Observatory), Brad Singer (University of Wisconsin), Danielle Sumy (Incorporated Research Institutions for Seismology), Cliff Thurber (University of Wisconsin), Basil Tikoff (University of Wisconsin), Harold Tobin (University of Wisconsin), Anne Trehu (Oregon State University), Martyn Unsworth (University of Alberta)

b. Graduate and Post-doctoral Advisors

MS and PhD Advisor: Simon Klemperer, Stanford University
Postdoctoral advisors: Joan Gomberg, USGS-Seattle, Tom Pratt, USGS-Seattle

c. Thesis Advisor and Postgraduate-Scholar Sponsor

PhD (Cornell): Dana Peterson, Catherine Lambert, Nathan Stevens
MS (Cornell): Stephanie Nale
MS (OU): Xavier Refunjol. Chris Mace, Matt McGuire, Gabriel Mattei, Rebecca Horne, Cullen Hogan, Dalton Hawkins, Michael Kowalczyk
Total students advised: MS (9), PhD (3)