

HERSH J. GILBERT
Earth and Atmospheric Sciences
Purdue University
550 Stadium Mall Drive
West Lafayette, IN 47906

Professional Preparation

Bachelor of Arts, Washington University in St. Louis, May 1996
Major: Physics; Minor: Earth and Planetary Science
Ph.D. University of Colorado at Boulder 2001,
Geophysics

Positions Held

Purdue University
Assistant Professor 2006 - present
University of Arizona
Postdoctoral Research Associate, 2002 - 2006
University of Colorado at Boulder,
Postdoctoral Research Associate, 2001 – 2002

Publications

- Gilbert, H.**, S. Beck, and G. Zandt, Lithospheric and upper mantle structure of central Chile and Argentina, *Geophys. J. Int.*, 165, 383-398, doi:10.1111/j.1365-246X.2006.02867, 2006.
- Calkins, J. A., G. Zandt, **H. J. Gilbert**, and S. L. Beck, Crustal images from San Juan, Argentina, obtained using high frequency local event receiver functions, *Geophysical Research Letters*, 33, L07309, doi:10.1029/2005GL025516, 2006.
- Zandt, G., **H. Gilbert**, T. J. Owens, M. Ducea, J. Saleeby, and C. H. Jones, Active foundering of a continental arc root beneath the southern Sierra Nevada in California, *Nature*, 431, 41-46, 2004.
- Gilbert, H. J.**, and A. F. Sheehan, Images of crustal variations in the intermountain west, *J. Geophys. Res.*, 109, B03306, doi:10.1029/2003JB002730, 2004.
- Gilbert, H. J.**, A. F. Sheehan, K. G. Dueker, and P. Molnar, Receiver functions in the western United States, with implications for upper mantle structure and dynamics, *J. Geophys. Res.*, 108(B5), 2229, doi:10.1029/2001JB001194, 2003.
- Wilson, C. K., C. H. Jones, and **H. J. Gilbert**, Single-chamber silicic magma system inferred from shear wave discontinuities of the crust and uppermost mantle, Coso geothermal area, California, *J. Geophys. Res.*, 108(B5), 2226, doi:10.1029/2002JB001798, 2003.
- Gilbert, H. J.**, et al., Upper mantle discontinuity structure in the region of the Tonga Subduction Zone, *Geophysical Research Letters*, 28, 1855-1858, 2001.
- Sheehan, A. F., P. M. Shearer, **H. J. Gilbert**, and K. G. Dueker, Seismic migration processing of P-SV converted phases for mantle discontinuity structure beneath the Snake River Plain, western United States, *Journal of Geophysical Research*, 105, p. 19055-19065, 2000.

- Shen, Y., A. F. Sheehan, K. G. Dueker, C. de Groot-Hedlin, and **H. Gilbert**, Mantle discontinuity structure beneath the southern east Pacific Rise from P-to-S converted phases, *Science*, 280, 1232-1235, 1998.
- Wiens, D. A., **H. J. Gilbert**, B. Hicks, M.E. Wyssession, and P.J. Shore, Aftershock sequences of moderate sized intermediate and deep earthquakes in the Tonga Subduction Zone. *Geophysical Research Letters*, 24, 2059-2062, 1997.
- Wiens, D. A., and **H. J. Gilbert**, Effect of slab temperature on deep-earthquake aftershock productivity and magnitude-frequency relations, *Nature*, 384, 153-156, 1996.

Field Experience

- SNEP Array design and deployment, California and Nevada, 2005-2006
- COARSE Array deployment and maintenance, Arizona, 2003-2005.
- Marlborough New Zealand short-period arrays, PASSCAL deployment, 2001
- Coso passive short-period arrays, PASSCAL deployment-California, 1999&2000
- CD-ROM, PASSCAL deployment-New Mexico, Colorado, 1999

Synergistic Activities

Educational: I am currently involved in supervising multiple research projects with graduate and undergraduate students and the University of Arizona. One of the students I am supervising has been working with data recorded by the COARSE array in southern Arizona. Other projects are focused on the tectonics of South America and the Toba caldera in Sumatra.

Recent Collaborators

Susan Beck (Univ. of Ariz.), Ken Dueker(Univ. of Wyo.), Craig Jones(Univ. of Colo.), Peter Molnar(Univ. of Colo.), Tom Owens(Univ. of S. Carolina.), Anne Sheehan(Univ. of Colo.), Charlie Wilson(LED0), George Zandt(Univ. of Ariz.)

Ph.D. Advisor

Anne Sheehan, University of Colorado, Boulder

Postdoctoral Advisors

Susan Beck and George Zandt, University of Arizona