

Peng Zhao

Curriculum Vitae

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Education

Ph.D. in Geophysics (major: Seismology; minor in Civil Engineering), Georgia Institute of Technology, Atlanta, GA, 2005-2010 (expected), GPA: 3.77/4.0

B.S. in Geophysics, Peking University, Beijing, China, 2001-2005, GPA: 4.5/5.0

Research Interests

Temporal Changes of Fault Zone Properties
High Resolution Imaging of Fault Zone Structures
Passive Imaging (Using Ambient Noise Cross-Correlation)
Earthquake Triggering
Data Analysis and Signal Processing

Research Experience

Graduate Research Assistant, Georgia Institute of Technology, 2005-present

Summer Intern, Schlumberger Oilfield Services, 2009

Field Experience

Panola Mountain Research Watershed, Atlanta, GA, fall 2005, assisted in GPR and seismic data acquisition for analysis of shallow scatters

Southern Appalachians, spring 2008, field strip for course *structural geology*

Teaching Experience

Teaching Assistant, Georgia Institute of Technology, spring 2006: Earth Processes (EAS 2600)

Teaching Assistant, Georgia Institute of Technology, spring 2007: Modeling and Computer Programming for Geosciences (EAS 8803)

Affiliations

American Geophysical Union	2006-present
Seismological Society of American	2006-present
Society of Exploration Geophysicists	2006-present

Publications

1. Zhao, P. and Z. Peng (2008), Velocity contrast along the Calaveras fault from analysis of fault zone head waves generated by repeating earthquakes, *Geophys. Res. Lett.*, 35, L01303, doi:10.1029/2007GL031810.
2. Zhao, P., Z. Peng, Z. Shi, M. Lewis, and Y. Ben-Zion (2009), Variations of the velocity contrast and rupture properties of M6 earthquakes along the Parkfield section of the San Andreas fault, *Geophys. J. Int.*, doi: 10.1111/j.1365-246X.2009.04436.x.
3. Zhao, P. and Z. Peng (2009), Depth extent of damage zones around the central Calaveras fault from waveform analysis of repeating earthquakes, *Geophys. J. Int.*, doi: 10.1111/j.1365-246X.2009.04385.x.
4. Peng, Z. and P. Zhao (2009), Migration of early aftershocks following the 2004 Parkfield earthquake, *Nature Geosci.*, doi: 10.1038/ngeo697.
5. Peng, Z., L. T. Long, P. Zhao, A. Fabian and L. Ojha (2009), High-frequency artifact caused by the analysis procedure during large-amplitude surface waves, *Seismo. Res. Lett.*, in prep.
6. Peng, Z., P. Zhao, and T. Toteva (2010), Spatial variations of temporal changes in near-surface layers after the 2004 Mw6.0 Parkfield earthquake observed by the UPSAR, *Geophys. J. Int.*, in prep.

Conference Abstracts

Zhao, P., Z. Peng, and K. Sabra (2009), Detecting temporal changes around the Parkfield section of the San Andreas Fault associated with large teleseismic earthquakes, *Eos Trans. AGU*, 90(54), *Fall Meet. Suppl.*, Abstract S23C-02 (**Talk**).

Peng, Z., B. Enescu, P. Zhao, and Sebastian Hainzl (2009), Detecting early aftershocks in California and Japan based on a matched filter technique, *Eos Trans. AGU*, 90(54), *Fall Meet. Suppl.*, Abstract S54A-06.

Zhao, P. and Z. Peng (2008), Identification of repeating earthquakes and spatio-temporal variations of fault zone properties around the Parkfield section of the San Andreas fault and the central Calaveras fault, *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract S53A-1817.

Toteva, T., Z. Peng, and P. Zhao (2008), Temporal changes in near-surface layers and deep fault zone scatterers after the 2004 Mw6.0 Parkfield earthquake observed by the UPSAR, *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract S53A-1816.

Zhao, P., Z. Peng, Y. Ben-Zion, Z. Shi, and M. Lewis (2008), Variations of the velocity contrast and rupture properties of M6 earthquakes along the Parkfield section of the San Andreas fault, *Seis. Res. Lett.*, 79(2).

Peng, Z., and P. Zhao (2008), Early aftershocks of the 2004 Parkfield earthquake detected by a matched filter technique, *Seis. Res. Lett.*, 79(2), 303.

Zhao, P., Z. Peng, Y. Ben-Zion, M. Lewis, and Z. Shi (2007), Variations of velocity contrast along the rupture zone of the 2004 M6 Parkfield earthquake on the San Andreas Fault, *Eos Trans. AGU*, 88(52), *Fall Meet. Suppl.*, Abstract T51C-0678.

Zhao, P. and Z. Peng (2007), Depth extent of the damage and healing processes and velocity contrast along the calaveras fault zone revealed from waveform analysis of repeating earthquakes, *Seism. Res. Lett.*, 78, 316.

Ben-Zion, Y., Z. Peng, P. Zhao, Z. Shi, and M. Lewis (2007), Variations of the velocity contrast and rupture properties of M6 earthquakes along the Parkfield section of the San Andreas fault, *Eos Trans. AGU*, 88(52), *Fall Meet. Suppl.*, Abstract T53C-08

Lewis, M., Y. Ben-Zion, Z. Peng, Z. Shi and P. Zhao (2007), The velocity contrast across the Parkfield section of the San Andreas fault near the SAFOD drill site, *Eos Trans. AGU*, 88(52), *Fall Meet. Suppl.*, Abstract T51C-0680.

Shi, Z., Y. Ben-Zion, Z. Peng, M. Lewis, and P. Zhao (2007), Analysis of fault zone head waves in the San Andreas and Southwest Fracture Zone around the hypocenter of the 2006 M6 Parkfield earthquake, *Eos Trans. AGU*, 88(52), *Fall Meet. Suppl.*, Abstract T51C-0679.

Zhao, P. and Z. Peng (2006), Structural properties and temporal evolutions of the Calaveras fault zone revealed from waveform analysis of repeating earthquakes in the rupture zone of the 1984 Morgan Hill earthquake, *Eos Trans. AGU*, 87(52), *Fall Meet. Suppl.*, Abstract T32C-04.