



Seismological Society of America

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For Immediate Release

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**Zhigang Peng to be honored with Richter Early Career Award,
by Seismological Society of America;**

Research has improved understanding of physics of earthquakes and faults

San Francisco, April 5, 2011 – Zhigang Peng has made seismological discovery a regular occurrence early in his career. Peng has written 35 peer-reviewed papers that have contributed much to the understanding physics of earthquakes and faults. For his work, the 35-year old Peng will be awarded the Seismological Society of America's (SSA) Charles F. Richter Early Career Award at the organization's annual meeting held April 13-15 in Memphis, Tennessee. The award recognizes outstanding contributions to the goals of the Society by a member early in his or her career.

An Assistant Professor in the School of Earth and Atmospheric Sciences at the Georgia Institute of Technology since 2006, Peng's contributions to earthquake seismology have showcased the traits that have made him an impressive researcher. Peng identified many important physical problems that could be addressed by careful analysis of seismic data, and showed patience and diligence to comb through mountains of records to conduct the research, while also contributing to the understanding of earthquake triggering, non-volcanic tremor, and fault zone structure.

One of his recent papers, "Migration of early aftershocks following the 2004 Parkfield earthquake," was published in Nature Geoscience in 2009. In that paper, Peng and his graduate research assistant Peng Zhao used a matched-filter technique to examine the aftershocks of the 2004 magnitude 6.0 earthquake along the Parkfield section of the San Andreas Fault. They found almost 11 times as many aftershocks than previously reported in a well-instrumented area. The findings lent credence to the idea that the aftershocks were the result of fault creeping. Currently Peng's research group is applying this technique to several recent earthquake sequences in California, China, and Japan to detect more aftershocks, and use them to better understand the physical mechanisms of aftershock generation.

Another recent focus of his research is dynamic triggering of microearthquakes and tremor by large distant earthquakes. Working with many international groups, Peng found that dynamic triggering not only occur in plate-boundary regions in California and Taiwan, but also in many intraplate regions in China and elsewhere. In each region he



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documented conditions required for triggering – important benchmarks in the current struggle to understand tremor and triggering in general. These studies have broad

implications, including a better understanding of earthquake nucleation and interaction over long distances.

In addition to continuing to conduct his own research, Peng has helped grow the Geophysics group at Georgia Tech. His leadership helped rebuild the group and attract quality graduate students. He is very active in providing service to the scientific community by organizing meetings and conference sessions, reviewing numerous papers and proposals, and recently serving as the Associate Editor of the Bulletin of the Seismological Society of America. His online tutorial on Seismic Analysis Code is one of the most widely used teaching materials. Peng has also been a frequent commenter in national and international media, educating the public about major seismological events as he did in 2008 following the Wenchuan earthquake in China, in 2010 following the Haiti earthquake, and recently following the magnitude 9 Japan earthquake.

SSA is a scientific society devoted to the advancement of earthquake science. Founded in 1906 in San Francisco, the Society now has members throughout the world representing a variety of technical interests: seismologists and other geophysicists, geologists, engineers, insurers, and policy-makers in preparedness and safety.

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