

## Resume

### Contact information:

Wei Dai  
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**Objective:** Obtain an internship with an oil company or geophysics service company.

### Education:

B.S., geophysics, University of Science and Technology of China, July 2004.  
M.S., geology, University of Illinois, at Urbana-Champaign, May 2007.  
Ph.D., geophysics, University of Utah, August 2008-present. Expected graduation Spring 2012.

### Experiences:

2005-2008, RA in Department of Geology, University of Illinois, at Urbana-Champaign.  
2008-present, RA in UTAM, University of Utah.

### Research:

For my master degree, my research is focused on the Earth's deep structure and motion. We have collected a large dataset of high quality seismic doublets. With our data, we have been studying the Earth's inner core super-rotation, inner core boundary topography, outer core motion, and also we have evaluated earthquake location precision from different earthquake catalogs.

For the Ph.D. degree, I have been working on 3D least-squares migration with a deblurring filter to speed up convergence. Results of synthetic tests are encouraging. With the deblurring filter, I can accelerate convergence of LSM by 2-5 times and get acceptable images after only a few iterations. Future work will be focused on tests of field data.

### Awards:

2001 Outstanding Student Scholarship, USTC (Rank 2)  
2002 Zhang Zong-zhi Scholarship, USTC  
2003 Outstanding Student Scholarship, USTC (Rank 2)

### Publications:

1. **Wei Dai**, 2009, Fast 3D least-squares migration with a deblurring filter, UTAM annual report, 2008.

1. **Wei Dai** and Xiaodong Song, 2008, Detection of motion and heterogeneity in Earth's liquid outer core, *Geophys. Res. Lett.*, 35, L16311, doi:10.1029/2008GL034895.

2. Xiaodong Song and **Wei Dai**, 2008, Topography of inner core boundary from high-quality waveform doublets, *Geophys. J. Int.*, in press.

3. Yanwei Xue, **Wei Dai et al.**, 2004. Study of the nonlinear behavior of rock under mesoscopic condition, reported in 20<sup>th</sup> *Chinese Geophysical Society*. (Awarded as Prize of Excellent Student Research Paper in 20<sup>th</sup> Chinese Geophysical Society, 2004).

4. **Master Thesis:** Teleseismic earthquake waveform doublets from South Sandwich Islands subduction zone: Spatial and temporal distributions and implications for inner core rotation.

**Professional Affiliations:**

American Geophysical Union.

Society of Exploration Geophysicists.

American Association of Petroleum Geologists.

**Reference:**

Prof. Gerard Schuster, University of Utah, Ph.D. Advisor, (801)581-4373,

[Schuster@mines.utah.edu](mailto:Schuster@mines.utah.edu).

Prof. Xiaodong Song, University of Illinois, Master Advisor, (217)333-1841,

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