

CURRICULUM VITAE

Tai-Lin (Ellen) Tseng

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Education

- 2007 **Ph.D.**, Geophysics, University of Illinois at Urbana-Champaign (UIUC), USA
Dissertation: Seismic Studies of the Mantle Transition Zone
Advisor : Dr. Wang-Ping Chen
- 1998 **M.S.**, Geophysics, National Central University (NCU), Taiwan
Thesis: An Analysis for the Attenuation Properties of the Uppermost Inner Core by Using Taiwan Seismic Array Data
Advisor: Dr. Bor-Shouh Huang and Dr. Byau-Heng Chin
- 1996 **B.S.**, Earth Sciences, NCU, Taiwan
Senior Project: Focal Mechanism of the June 5, 1994 Nan-Ao Earthquake
Advisor: Dr. Kuo-Fong Ma

Awards and Honors

- 2006 Workshop Scholarship, CIDER Summer Program
- 2006 Roscoe Jackson Award, UIUC
- 2005 Morris M. and Ada B. Leighton Award, UIUC
- 2005 Poster Award, 1st Place, Annual Earth Research Review, UIUC
- 2001, 2003–2005 Conference travel grant for presentation at the AGU Fall meetings
- 2001, 2005 Workshop Scholarship, Incorporated Research Institutions for Seismology
- 2003 Harriet Wallace Award, UIUC
- 1996 Salutatorian, Department of Earth Sciences, NCU

Research Experience

- 2007 – Present **Postdoctoral Research Associate**, Department of Geology, UIUC
- Crustal structures beneath western central Tibet inferred from receiver functions of Hi-CLIMB array data (collaborated with Prof. Robert Nowack, Purdue)
 - Very deep earthquakes and anomalies of mantle transition zone in Fiji-Tonga region
- 2000 – 2007 **Research Assistant**, Department of Geology, UIUC
- Seismic constraints on mantle dynamics beneath the convergent boundaries of oceanic subduction and continent-continent collision
 - Database manager for PASSCAL project Hi-CLIMB
 - P-wave receiver functions beneath southern Indian shield

- 2004 (Apr–Jul) **Field Assistant**, Department of Geology, UIUC
- Deployment of broadband seismic array in Nepal and Tibet, project Hi-CLIMB
- 1998 – 1999 **Research Assistant**, Institute of Earth Sciences, Academia Sinica, Taiwan
- Seismic attenuation of the uppermost inner core
 - Precise relocation of the 1999 Chi-Chi earthquake sequence in Taiwan using relative travel-time residues

Teaching Experience

- 2001 – 2006 **Teaching Assistant**, Department of Geology, UIUC
- Introduction to Physical Geology (2003, 2005–2006)
 - Geology of the National Parks and Monuments (2001–2002)
- 2003 **Advanced Graduate Teacher Certificate earned**, UIUC

Professional Activities

Affiliations

American Geophysical Union
Seismological Society of America

Invited Talks

Seismic Contracts in Mantle Discontinuities beneath Convergent Margins, Miami University, Ohio (Spring 2006)

Peer Reviewer for

Bulletin of the Seismological Society of America
Studia Geophysica and Geodaetica

Academic Service

- 2003 – 2004 President, Graduate Student Council, Department of Geology, UIUC
- 2004 Committee Member, Annual Research Review, Department of Geology, UIUC
- 1994 – 1995 President, Student Council, Department of Earth Sciences, NCU

References

- Dr. Wang-Ping Chen**, Dept. of Geology, University of Illinois at Urbana-Champaign (wpchen@uiuc.edu)
- Dr. Jie Li**, Dept. of Geology, University of Illinois at Urbana-Champaign (jackieli@uiuc.edu)
- Dr. Robert L. Nowack**, Dept. of Earth & Atmospheric Sciences, Purdue University (nowack@purdue.edu)

Relevant Personal Information

Citizenship: Taiwan, R.O.C.
Immigration Status: OPT

Publications

Journal Papers

- Tseng, T.-L.**, and W.-P. Chen, Discordant Contrasts of *P*- and *S*-wave Speeds across the 660-km Discontinuity beneath Tibet: A Case for Hydrous Remnant of Sub-continental Lithosphere, submitted to *Earth Planet. Sci. Lett.* (revised and resubmitted), 2007.
- Chen, W.-P., and **T.-L. Tseng**, Small 660-km Seismic Discontinuity beneath Tibet Implies Resting Ground for Detached Lithosphere, *J. Geophys. Res.*, 112, doi:10.1029/2006JB004607, 2007.
- Tseng, T.-L.**, and W.-P. Chen, Probing the Southern Indian Shield with *P*-Wave Receiver-Function Profiles, *Bull. Seism. Soc. Am.*, 96, doi:10.17850/0120050074, 2006.
- Tseng, T.-L.**, and W.-P. Chen, Contrasts in seismic wave speeds and density across the 660-km discontinuity beneath the Philippine and Japan Seas, *J. Geophys. Res.*, 109, doi:10.1029/2003JB002613, 2004.
- Tseng, T.-L.**, B. S. Huang and B. H. Chin, Depth-dependent Attenuation in the Uppermost Inner Core from the Taiwan Short Period Seismic Array PKP Data, *Geophys. Res. Lett.*, 28, 459-462, 2001.

First Author Published Conference Abstracts

- Tseng, T.-L., Discordant Contrasts of *P*- and *S*-wave Speeds across the 660-km Discontinuity beneath Tibet: A Case for Hydrous Remnant of Sub-continental Lithospheric Mantle, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract T23G-04, 2007
- Tseng, T.-L., W.-P. Chen and H.W. Green, Aseismic anomalies in the mantle transition zone: subduction versus continental collision, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract D151A-0286, 2007
- Tseng, T.-L., W.-P. Chen and R.L. Nowack, Imaging the Tibetan Lithosphere: Gaussian-Beam Migration of Broadband Data from the Hi-CLIMB seismic Array, *EOS Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract T33F-07, 2005.
- Tseng, T.-L. and W.-P. Chen, Very Small 660-km Discontinuity beneath Tibet: Evidence for Detached Lithosphere? *EOS Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract T41A-1286, 2005.
- Tseng, T.-L. and W.-P. Chen, Probing the Mantle Transition Zone beneath Tibet Using Triplicate Seismic Waveforms, *EOS Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract S13B-1063, 2004.
- Tseng, T.-L., W.-P. Chen, and Zuihong Zou, Probing the Southern Indian Shield with *P*-Wave Receiver-Functions, *EOS Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract S31H-02, 2003.
- Tseng, T.-L., M. B. Brudzinski, W.-P. Chen and B. S. Huang, Seismic Wave Speeds and Density Across the 660-km Discontinuity Beneath the Philippine and Japan Seas, *EOS Trans. AGU*, 82(47), Fall Meet. Suppl., Abstract S41B-04, 2001.
- Tseng, T.-L., B. S. Huang and B. H. Chin, An Analysis for the Attenuation Properties of the Uppermost Inner Core by Using Taiwan Seismic Array Data, *Abstract Vol. Annual Meeting of Geological Society of China*, 109-111, 1999.
- Tseng, T.-L., B. S. Huang and B. H. Chin, Seismic Array Analysis for the Attenuation of the Uppermost Inner Core, *EOS Trans. AGU*, 79, W107, 1998.