Meredith Nettles
Curriculum Vitae

Lamont-Doherty Earth Observatory
Columbia University
61 Route 9W
Palisades, New York 10964
E-mail: nettles@ldeo.columbia.edu
Tel/FAX: (845) 365 8613 / (845) 365 8150

Education

Ph.D. (Geophysics), 2005
Harvard University, Cambridge, Massachusetts
Anisotropic velocity structure of the mantle beneath North America
Advisor: Adam M. Dziewoński

M.S. (Geosciences), 2000
University of Arizona, Tucson, Arizona

A.B. (Government), Cum Laude in General Studies, 1995
Harvard and Radcliffe Colleges, Cambridge, Massachusetts

Research Experience

2005–present	Lamont-Doherty Earth Observatory of Columbia University Post-Doctoral Research Scientist
2000–2005	Department of Earth and Planetary Sciences, Harvard University Graduate Research Fellow
1997–2000	Department of Geosciences, University of Arizona Graduate Research Assistant
1995–1997	Department of Earth and Planetary Sciences, Harvard University Research Assistant

Teaching Experience

(course title and evaluation received, maximum 5.0)

Harvard University:	
Fall 2000, Fall 2001, Fall 2002	Teaching Fellow, EPS 7: Introduction to Geosciences (4.9, 5.0, 4.9) Developed and maintained course web site: wrote course notes for each lecture, including key viewgraphs and main points of lecture, as well as supplementary examples for numerical problems. Developed and revised laboratory exercises. Led course fieldtrip to Cape Cod National Seashore.
University of Arizona:	
Spring 1998, Spring 1999, Fall 1999	Teaching Assistant, Geosciences 432/532: Introduction to Seismology Developed and taught all laboratory exercises, most of which were designed to use real, freely available seismic data. During the Fall 1999 term, taught approximately 20% of course lectures. *(All teaching at the University of Arizona was done on a volunteer basis; as a result, no formal evaluations are available.)*
Harvard University:	
Spring 1996	Teaching Assistant, Science A-24: The Dynamic Earth (5.0)
Fall 1995	Teaching Assistant, EPS 20a: Mathematical Methods in the Natural Sciences (4.7)
Outreach:	Development and presentation of programs on earthquakes and seismic hazards at the elementary- and secondary-school levels

Honors

AGU Outstanding Student Paper Award, Spring Meeting, 2004
Harvard University Certificate of Distinction in Teaching, 1995, 2000, 2001, 2002
NSF Graduate Student Fellowship, 1998 – 2001
University of Arizona Graduate College Fellowship, 1997 – 1998
Phi Beta Kappa, 1995
IBM Watson Scholarship, 1991 – 1995
NASA Group Achievement Award (to ROSAT Mission Operations Team), 1994

Meredith Nettles
Publications and Abstracts

Publications

Tsai, V. C., M. Nettles, G. Ekström, and A. M. Dziewonski, Multiple CMT source analysis of the 2004 Sumatra earthquake, *Geophys. Res. Lett.*, *32*, 10.1029/2005GL023813, 2005.

Lay, T., H. Kanamori, C. J. Ammon, M. Nettles, S. N. Ward, R. C. Aster, S. L. Beck, S. L. Bilek, M. R. Brudzinski, R. Butler, H. R. DeShon, G. Ekström, K. Satake, and S. Sipkin, The great Sumatra-Andaman earthquake of 26 December 2004, *Science*, *308*, 1127–1133, 2005.

Nettles, M., and G. Ekström, Long-period source characteristics of the 1975 Kalapana, Hawaii, earthquake, *Bull. Seismol. Soc. Am.*, *94*, 422–429, 2004.

Wolfe, C. J., P. G. Okubo, G. Ekström, M. Nettles, and P. M. Shearer, Characteristics of deep ($\geq$13 km) Hawaiian earthquakes and Hawaiian earthquakes west of 155.55°W, *Geochem. Geophys. Geosyst.*, *5*, Q04006, doi: 10.1029/2003GC000618, 2004.

Ekström, G., M. Nettles, and G. A. Abers, Glacial earthquakes, *Science*, *302*, 622–624, 2003.

Allen, R. M., G. Nolet, W. J. Morgan, K. Vogfjord, M. Nettles, G. Ekström, B. H. Bergsson, P. Erlendsson, G. R. Foulger, S. Jakobsdottir, B. R. Julian, M. Pritchard, S. Ragnarsson, and R. Stefansson, Plume driven plumbing and crustal formation in Iceland, *J. Geophys. Res.*, *107*, 10.1029/2001JB000584, 2002.

Chen, P. F., M. Nettles, E. A. Okal, and G. Ekström, Centroid moment tensor solutions for intermediate-depth earthquakes of the WWSSN-HGLP era, *Phys. Earth Planet. Inter.*, *124*, 1–7, 2001.

Von Herzen, R., C. Ruppel, P. Molnar, M. Nettles, S. Nagihara, and G. Ekström, A constraint on the shear stress at the Pacific-Australian plate boundary from heat flow and seismicity at the Kermadec forearc, *J. Geophys. Res.*, *106*, 6817–6833, 2001.

Nettles, M., T. C. Wallace and S. L. Beck, The March 25, 1998 Antarctic plate earthquake, *Geophys. Res. Lett.*, *26*, 2097–2100, 1999.

Nettles, M. and G. Ekström, Faulting mechanism of anomalous earthquakes near Bárdarbunga Volcano, Iceland, *J. Geophys. Res.*, *103*, 17,973–17,983, 1998.

Ekström, G. and M. Nettles, Calibration of the HGLP seismograph network and centroid-moment tensor analysis of significant earthquakes of 1976, *Phys. Earth Planet. Inter.*, *101*, 219–243, 1997.

Reports and Extended Abstracts

Ekström, G., A. M. Dziewoński, N. N. Maternovskaya, and M. Nettles, Global seismicity of 2003: centroid-moment tensor solutions for 1087 earthquakes, *Phys. Earth Planet. Inter.*, *148*, 327–351, 2005.

Ekström, G., A. M. Dziewoński, N. N. Maternovskaya, and M. Nettles, Global seismicity of 2002: centroid-moment tensor solutions for 1034 earthquakes, *Phys. Earth Planet. Inter.*, *148*, 303–326, 2005.

Ekström, G., A. M. Dziewoński, N. N. Maternovskaya, and M. Nettles, Global seismicity of 2001: centroid-moment tensor solutions for 961 earthquakes, *Phys. Earth Planet. Inter.*, *136*, 165–185, 2003.

Dziewonski, A. M., G. Ekström and M. Nettles, Harvard centroid-moment tensor solutions 1976-96: Significance of the non-double couple component, in *Rockbursts and Seismicity in Mines*, edited by S. J. Gibowicz and S. Lasocki, pp. 3–16, A. A. Balkema, Brookfield, Vt., 1997.

Abstracts

Nettles, M., G. Ekström, A. M. Dziewoński, N. Maternovskaya, and V. C. Tsai, Source characteristics of the great Sumatra earthquake and its aftershocks, *Eos Trans. AGU*, *86*, Joint Meet. Suppl., U43A-01, 2005.

Nettles, M., and A. M. Dziewoński, Integrating global and regional datasets for tomography in North America, *Eos Trans. AGU*, *85*, Fall Meet. Suppl., S52-B04, 2004.

Ekström, G., A. M. Dziewoński, M. Nettles, and N. N. Maternovskaya, Studying global seismicity and other phenomena with the Global Seismographic Network, *Eos Trans. AGU*, *85*, Fall Meet. Suppl., S52B-01, 2004.

Nettles, M., and A. M. Dziewonski, Advances in global and regional tomography using the GSN, *Eos Trans. AGU*, *85*, Joint Meet. Suppl., JA341, 2004.

Ekström, G., and M. Nettles, Discovering earthquakes and other phenomena with the GSN, *Eos Trans. AGU*, *85*, Joint Meet. Suppl., JA340, 2004.

Nettles, M., and A. M. Dziewonski, Tomographic modeling of the North American upper mantle, *Eos Trans. AGU*, *84*, Fall Meet. Suppl., F1071, 2003.

Ekström, G., M. Nettles, and G. A. Abers, Glacial earthquakes, *Eos Trans. AGU*, *84*, Fall Meet. Suppl., F365, 2003.

Nettles, M., G. Ekström, and A. M. Dziewonski, Improved CMT source parameters for earthquakes in eastern North America, *Seismol. Res. Lett.*, *74*, 70, 2003.

Ekström, G., and M. Nettles, Detection and location of slow seismic sources using surface waves, *Eos Trans. AGU*, *83*, Fall Meet. Suppl., F1036, 2002.

Nettles, M., and A. M. Dziewonski, Surface-wave constraints on the shear-velocity structure of the North American upper mantle, *Eos Trans. AGU*, *83*, Fall Meet. Suppl., F1311, 2002.

Nettles, M., M. Antolik, G. Ekström, and A. M. Dziewonski, Long-period source characteristics of the June 23, 2001 Peru earthquake, *Eos Trans. AGU*, *82*, Fall Meet. Suppl., F922, 2001.

Nettles, M., and A. M. Dziewonski, Models of surface-wave propagation in North America, *Eos Trans. AGU*, *82*, Fall Meet. Suppl., F1470, 2001.

Nettles, M., C. Peccei, G. Ekström, and A. M. Dziewonski, Measurements and models of very-long-period surface-wave propagation, *Eos Trans. AGU*, *81*, Fall Meet. Suppl., F822, 2000.

Von Herzen, R. P., P. Molnar, C. Ruppel, S. Nagihara, M. Nettles, and G. Ekström, Geothermal and earthquake data from the Kermadec forearc: Implications for shear stress on the thrust fault, *Eos Trans. AGU*, *80*, Fall Meet. Suppl., F920, 1999.

Nettles, M. and T. C. Wallace, Modeling the near-field term: retrieval of source information for deep earthquakes, *Eos Trans. AGU*, *80*, Fall Meet. Suppl., F667, 1999.

Allen, R. M., G. Nolet, W. J. Morgan, K. Vogfjord, M. Nettles, G. Ekström, B. H. Bergsson, P. Erlendsson, G. R. Foulger, S. Jakobsdottir, B. R. Julian, M. Pritchard, S. Ragnarsson and R. Stefansson, The Icelandic crust, *Eos Trans. AGU*, *80*, Fall Meet. Suppl., F645, 1999.

Nettles, M., T. C. Wallace, S. Beck and G. Ekström, The March 25, 1998 Antarctic plate earthquake, *Eos Trans. AGU*, *79*, Fall Meet. Suppl., F662, 1998.

Nettles, M. and T. C. Wallace, Increases in intermediate depth seismicity and the occurrence of great interplate earthquakes, *Eos Trans. AGU*, *78*, Fall Meet. Suppl., F451, 1997.

Nettles, M. and G. Ekström, Faulting mechanism of anomalous earthquakes near Bardarbunga Volcano, Iceland, *Eos Trans. AGU*, *77*, Fall Meet. Suppl., F54, 1996.