

Nori Nakata

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Personal Information

Japanese Citizen, F-1 Visa, OPT

Educational Background

1/2012–8/2013	Ph.D., Colorado School of Mines, Department of Geophysics, Center for Wave Phenomena
4/2010–12/2011 (transfer to CSM)	Ph.D. candidate, Kyoto University, Department of Urban Management
4/2008–3/2010	M.Eng., Kyoto University, Civil and Earth Resources Engineering
4/2004–3/2008	B.Eng., Kyoto University, Global Engineering

Theses Titles

Ph.D.	Seismic interferometry for temporal monitoring
M.Eng.	Virtual world in Geophysics: synthesized data by interferometry and simulation
B.Eng.	Subsurface structures from train induced elastic waves using seismic interferometry

Positions Held

9/2013–9/2015	George Thompson Postdoctoral Fellowship, Stanford University, Department of Geophysics
4/2010–3/2011	Committee chairman, SEG Kyoto University student chapter
4/2009–3/2010	Treasurer, SPE Kyoto University student chapter

Publications

see attached lists

Awards

1. Mendenhall prize (outstanding graduating PhD student), Dept. of Geophysics, Colorado School of Mines, 2013
2. Outstanding student presentation award, 2013 Japan Geoscience Union Meeting, Chiba, May, 2013

3. Outstanding presentation award, Idea Competition in SEGJ 60th anniversary, Tokyo, October, 2008
4. Kyoto-university travel grant for visiting Colorado School of Mines, January, 2009
5. SLS travel grant for SEG 80th Annual Meeting from SEG Foundation, October, 2010

Scientific Grants

2010–2011	Norimitsu Nakata, Time-lapse monitoring by applying seismic interferometry to Hi-net data, Japan Society for the Promotion of Science (JSPS), 22-5857 (700,000 JPY × 2 years)
2013–2015	Nori Nakata, George Thompson Fellow, Stanford University (15,000 USD)

Teaching Experience

2012	Instructor (10 lecture hours), Advanced Engineering Mathematics
2008–2009	Teaching assistant, Stress Wave Engineering
2008–2009	Teaching assistant, Time Series Analysis

Working Experience

09/2013–09/2015	George Thompson Postdoctoral Fellow at Stanford Univ.
01/2012–08/2013	Research assistant at CWP, CSM
08/2010–12/2011	Visiting Researcher at CWP, CSM
4/2010–12/2011	Research Fellow of the Japan Society for the Promotion of Science (DC1)
12/2009–1/2010	Internship at JGI, Inc. Finding the appropriate numbers of sources and receivers for monitoring carbon capture and storage (CCS) by using numerical and real data
1/2009–3/2009	Visiting Researcher at CWP, CSM
11/2008–12/2008	Internship at JGI, Inc. Developing a monitoring method for carbon capture and storage (CCS) by using numerical and real data
8/2008–9/2008	Internship at JGI, Inc. Analyzing P-wave reflection seismic data for creating a subsurface image.

Part-time Jobs

2007–2008	Kagoya Japan as a server manager
2005–2006	Japan Weather Association (Kansai branch) as a system engineer

Publications

Journal Articles

1. **Nori Nakata** and Roel Snieder; Monitoring a building by deconvolution interferometry. II: Ambient-vibration analysis, *Bull. Seismol. Soc. Am.*, **104**, 1, (in press)
2. **Nori Nakata**; Combination of Hi-net and KiK-net data for deconvolution interferometry, *Bull. Seismol. Soc. Am.*, **103**, 6, 3073-3082, doi: 10.1785/0120130101, 2013
3. **Nori Nakata**, Roel Snieder, Seiichiro Kuroda, Shunichiro Ito, Takao Aizawa and Takashi Kunimi; Monitoring a building by deconvolution interferometry. I: Earthquake-data analysis, *Bull. Seismol. Soc. Am.*, **103**, 3, 1662-1678, doi: 10.1786/0120120291, 2013
4. **Nori Nakata** and Roel Snieder; Time-lapse change in anisotropy in Japan's near surface caused by the 2011 Tohoku-Oki earthquake, *Geophys. Res. Lett.*, **39**, L11313, doi:10.1029/2012GL051979, 2012
5. **Nori Nakata** and Roel Snieder; Estimating near-surface shear-wave velocities in Japan by applying seismic interferometry to KiK-net data, *J. Geophys. Res.*, **117**, B01308, doi:10.1029/2011JB008595, 2012 (Research highlights: Nature, AGU)
6. **Nori Nakata** and Roel Snieder; Near-surface weakening in Japan after the 2011 Tohoku-Oki earthquake, *Geophys. Res. Lett.*, **38**, L17302, doi:10.1029/2011GL048800, 2011 (Research highlight: IRIS)
7. **Norimitsu Nakata**, Roel Snieder, Takeshi Tsuji, Ken Larner, and Toshifumi Matsuoka; Shear-wave imaging from traffic noise using seismic interferometry by cross-coherence, *Geophysics*, **76**, 6, SA97-SA106, doi:10.1190/GEO2010-0188.1, 2011
8. Takeshi Tsuji, Jack Dvorkin, Gary Mavko, **Norimitsu Nakata**, Toshifumi Matsuoka, Ayako Nakanishi, Shuichi Kodaira, and Osamu Nishizawa; V_p/V_s ratio and shear-wave splitting in the Nankai Trough seismogenic zone: Insights into effective stress, pore pressure and sediment consolidation, *Geophysics*, **76**, 3, WA71-WA82, doi:10.1190/1.3560018, 2011
9. **Norimitsu Nakata**, Takeshi Tsuji, Toshifumi Matsuoka; Acceleration of computation speed for elastic wave simulation using a Graphic Processing Unit, *Exploration Geophysics*, **42**, 98-104, doi:10.1071/EG10039, 2011
10. **Norimitsu Nakata**; Speeding up large-scale seismic data processing using GPU, *Buturi-Tansa*, **62**, 2, 234-235, 2009 (in Japanese)

Conference Proceedings

1. **Nori Nakata**; Application of deconvolution interferometry with both Hi-net and KiK-net data, 2013 AGU Fall Meeting, San Francisco, California, USA, December, 2013
2. Michael Behm, **Nori Nakata** (speaker), Götz Bokelmann, and Simon Lloyd; Ambient noise tomography in the Eastern Alps of Europe, 2013 AGU Fall Meeting, San Francisco, California, USA, December, 2013
3. **Nori Nakata** and Roel Snieder; Interferometry with passive seismic data: Imaging and Monitoring, EAGE/SEG Forum 2013, Turning noise into geological information: The next big step?, Lisbon, Portugal, November, 2011
4. **Nori Nakata** and Roel Snieder; Body-wave interferometry using local earthquakes with multi-dimensional deconvolution and wavefield decomposition at free surface, 83th SEG annual meeting, Houston, Texas USA, September 22-27, 2013

5. **Nori Nakata** and Roel Snieder; Time-lapse changes in velocity and anisotropy after the 2011 Tohoku earthquake estimated by seismic interferometry (invited), *2013 Japan Geoscience Union Meeting*, Chiba, May, 2013 (in Japanese)
6. Roel Snieder and **Nori Nakata** (speaker); Time-lapse changes in velocity and anisotropy in Japan's near surface after the 2011 Tohoku earthquake (invited), *2012 AGU Fall Meeting*, San Francisco, California, USA, December, 2012
7. **Nori Nakata** and Roel Snieder; Time-lapse change in near-surface shear-wave velocities caused by rainfall and large earthquakes detected by applying seismic interferometry to earthquake data, *82th SEG annual meeting*, Las Vegas, Nevada, USA, November 4-9, 2012
8. Roel Snieder, **Nori Nakata**, Filippo Broggin, Kees Wapenaar, and Jyoti Behura; Development in seismic interferometry: Time-lapse monitoring and autofocusing of internal multiples (invited), *82th SEG annual meeting*, Las Vegas, Nevada, USA, November 4-9, 2012
9. Roel Snieder, Filippo Broggin, **Nori Nakata**, and Kees Wapenaar; Autofocusing of wave fields (invited), *IUGG Conference of Mathematical Geophysics*, Edinburgh, Scotland, June, 2012
10. Roel Snieder, **Nori Nakata**, Masatoshi Miyazawa, and Kees Wapenaar; Seismic interferometry; who needs a seismic source?, *Summer School of Waves in Complex Media*, Heraklion, Greece, June, 2012
11. **Nori Nakata** and Roel Snieder; Weakening of the near surface in Japan after the 2011 Tohoku-Oki earthquake detected by deconvolution interferometry, *2012 SSA Annual Meeting*, San Diego, California, USA, April, 2012
12. **Nori Nakata**, Roel Snieder, Seiichiro Kuroda, Conrad Newton, Shunichiro Ito, Takao Aizawa, Takashi Kunimi, and Toshifumi Matsuoka; Time-lapse monitoring a building with deconvolution interferometry applied to earthquake and ambient noise data, *AGU 2011 fall meeting*, San Francisco, California, USA, December, 2011
13. **Nori Nakata** and Roel Snieder; Monitoring near-surface shear-wave velocities in Japan using KiK-net data, *The 10th SEGJ International Symposium*, 294-297, Kyoto, Japan, November, 2011
14. Roel Snieder, **Nori Nakata**, Kees Wapenaar, and Evert Slob; Extracting the earth response from noise and complex earthquake data, *162nd meeting of the Acoustical Society of America*, San Diego, California, USA, November, 2011
15. **Nori Nakata**, Roel Snieder, Ken Larner, Takeshi Tsuji, and Toshifumi Matsuoka; Shear-wave imaging from traffic noise using seismic interferometry by cross-coherence, *SEG 2011 annual meeting*, 1580-1585, San Antonio, Texas, USA, September, 2011
16. Roel Snieder, **Norimitsu Nakata**, Takeshi Tsuji, Toshifumi Matsuoka; Shear wave imaging with seismic interferometry of traffic noise, *2010 AGU Fall Meeting*, 948670, San Francisco, California, USA, December, 2010
17. Takeshi Tsuji, **Norimitsu Nakata**, Toshifumi Matsuoka, Jack Dvorkin, Ayako Nakanishi, Shuichi Kodaira; Vp/Vs and shear-wave splitting at the seismogenic plate subduction zone: Insight into effective-stress and pore pressure distribution, *SEG Annual meeting*, 1635-1640, Denver, Colorado, USA, October, 2010
18. Akihisa Takahashi, **Norimitsu Nakata**, Shinji Kawasaki, Ziqiu Xue, Toshifumi Matsuoka; 4D response evaluation criteria for permanent OBC monitoring, *SEG D&P Forum*, Boston, USA, July, 2010

19. **Norimitsu Nakata**, Takeshi Tsuji, Toshifumi Matsuoka; Acceleration of the simulation of elastic wave propagation using GPU, The Bali 2010 International Geosciences Conference and Exposition, IGCE10-OS-072, Bali, Indonesia, July, 2010
20. **Norimitsu Nakata**, Toshifumi Matsuoka; Virtual receivers by seismic interferometry, 122nd SEGJ Conference, 52-55, Tokyo, June, 2010 (in Japanese)
21. **Norimitsu Nakata**, Shinji Kawasaki, Akihisa Takahashi, Ziqiu Xue, Toshifumi Matsuoka; Modeling on verification of availability of time-lapse seismic survey when storing CO₂ in complex reservoirs, Japan Geoscience Union Meeting 2010, MAG021-14, Chiba, May, 2010 (in Japanese)
22. **Norimitsu Nakata**, Toshifumi Matsuoka, Takeshi Tsuji, Roel Snieder; Interferometric Imaging by Cross Coherence, SEG Annual meeting workshop "Interferometry: The evolution of a multidisciplinary field", 4215, 28, Houston, Texas, USA, October, 2009
23. **Norimitsu Nakata**; Acceleration of seismic analysis using GPU, Idea Competition in SEGJ 60th anniversary, Tokyo, October, 2008 (in Japanese)
24. **Norimitsu Nakata**, Toshifumi Matsuoka, Kyosuke Onishi, Takeshi Tsuji, Changyun Lee, Kentaro Torii, Takao Aizawa, Toshinori Kimura; Subsurface structure from train induced elastic waves using seismic interferometry, 118th SEGJ Conference, 75-78, Tokyo, May, 2008 (in Japanese)
25. Kentaro Torii, **Norimitsu Nakata** (presenter), Toshifumi Matsuoka, Takeshi Tsuji, Takao Aizawa; Seismic Interferometry using Hi-Net Data, Japan Geoscience Union Meeting 2008, S226-P016, Chiba, May, 2008 (in Japanese)
26. **Norimitsu Nakata**, Toshifumi Matsuoka, Changyun Lee, Kentaro Torii, Toshinori Kimura; Sub-surface imaging using vibrations of subway, MMIJ in Kansai, 6, 10-11, Kyoto, December, 2007 (in Japanese)

Other invited talks

1. Roel Snieder and **Nori Nakata**; Time-lapse changes in structures from garbled signals, Dept. of Physics, Colorado School of Mines, Golden, CO, USA, November, 2013
2. **Nori Nakata**; Monitoring a building with seismic interferometry, National Research Institute for Earth Science and Disaster Prevention (NIED), Japan, June 7, 2013
3. **Nori Nakata**; How to improve quality of interferometric wavefields, Advanced industrial science and technology (AIST), Japan, June 6, 2013
4. **Nori Nakata**; Monitoring near-surface S-wave velocity applying seismic interferometry to earthquake data, Japan Oil, Gas, and Metals National Corporation (JOGMEC), Japan, July 4, 2012
5. **Nori Nakata**; Monitoring near-surface S-wave velocity applying seismic interferometry to earthquake data, National Institute of Rural Engineering, Japan, July 4, 2012
6. **Nori Nakata**; Monitoring near-surface S-wave velocity applying seismic interferometry to earthquake data, JGI, Inc., Japan, July 3, 2012
7. **Nori Nakata**; Monitoring near-surface S-wave velocity applying seismic interferometry to earthquake data, Tokyo Metropolitan University, Japan, July 2, 2012