

Nori Nakata

Norimitsu Nakata

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Positions Held

08/2016–present	Lissa and Cy Wagner Assistant Professor, University of Oklahoma, School of Geology and Geophysics
09/2013–08/2016	George Thompson Postdoctoral Fellowship, Stanford University, Department of Geophysics
05/2016–06/2016	Visiting Fellow at the Center for Advanced Studies, Ludwig-Maximilians-Universität München
04/2016–05/2016	Gledden Fellow, University of Western Australia
07/2014–08/2014	Visiting Researcher at Earthquake Research Institute, University of Tokyo
01/2012–08/2013	Research assistant at Center for Wave Phenomena, Colorado School of Mines
08/2010–12/2011	Visiting Researcher at Center for Wave Phenomena, Colorado School of Mines
4/2010–12/2011	Research Fellow of the Japan Society for the Promotion of Science (DC1)
12/2009–1/2010	Internship at Jgi, Inc.
1/2009–3/2009	Visiting Researcher at Center for Wave Phenomena, Colorado School of Mines
11/2008–12/2008	Internship at Jgi, Inc.
8/2008–9/2008	Internship at Jgi, Inc.
1/2007–8/2008	Server manager at Kagoya Japan
4/2005–12/2006	System engineer at Japan Weather Association (Kansai branch)

Educational Background

1/2012–8/2013	Ph.D., Colorado School of Mines, Department of Geophysics, Center for Wave Phenomena
4/2010–12/2011	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

Publications

see attached lists with 26 + 3 journal articles, 55 conference proceedings, 27 invited talks, and 1 patent.

Awards & recognition

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. Research highlight by *Nature* about the paper, Nakata and Snieder, *J. Geophys. Res.*, 2012
4. SLS travel grant for SEG 80th Annual Meeting from SEG Foundation, October, 2010
5. Kyoto-university travel grant for visiting Colorado School of Mines, January, 2009
6. Outstanding presentation award, Idea Competition in SEGJ 60th anniversary, Tokyo, October, 2008

Grants

2016–2017	Nori Nakata , Xiaowei Chen, and Jefferson Chang (Collaborative research with Cornell, Columbia, Oklahoma State universities), NSF RAPID: Monitoring aftershocks for the Mw5.8 Pawnee earthquake, <i>National Science Foundation (NSF ID: 1664286)</i> (23,001 USD)
2016–2017	Nori Nakata (PI) ; Assessment of the 4D fault rupture characterization and post-earthquake relaxation caused by the M5.8 Pawnee earthquake, <i>Mewbourne College Dean Award</i> (115,000 USD)
2016–2017	Greg Beroza and Nori Nakata , Stochastic characterization of crustal structure for high-frequency ground motion prediction using dense-array observations, <i>South California Earthquake Center (SCEC Award #16296)</i> (30,000 USD)
2015–2016	Greg Beroza and Nori Nakata , Characterizing spatial variability of ground motion using very dense arrays, <i>South California Earthquake Center (SCEC Award #15213)</i> (31,000 USD)
2013–present	Nori Nakata, support of workstations and new storage systems, <i>SuperMicro Inc.</i> (equivalent to 20,000 USD/year)
2013–2015	Nori Nakata (PI) , George Thompson Fellow, <i>Stanford University</i> (125,000 USD)
2010–2011	Norimitsu Nakata (PI) , Time-lapse monitoring by applying seismic interferometry to Hi-net data, <i>Japan Society for the Promotion of Science (JSPS), 22-5857</i> (5,600,000 JPY \approx 56,000 USD)

Teaching

2017 Spring	Instructor, Seismic Imaging (GPHY6873), University of Oklahoma
2016 Fall	Instructor, Seismic Rays and Waves (GPHY6970), University of Oklahoma
2014 Fall	Instructor, Introduction to Seismology (GEOPHYS 130), Stanford University
2012 Fall	Instructor (10 lecture hours), Advanced Engineering Mathematics (MATH348), Colorado School of Mines
2009 Fall	Teaching assistant, Stress Wave Engineering, Kyoto University
2009 Spring	Teaching assistant, Time Series Analysis, Kyoto University
2008 Fall	Teaching assistant, Stress Wave Engineering, Kyoto University
2009 Spring	Teaching assistant, Time Series Analysis, Kyoto University

Professional activities

2017	Guest editor for the Focus Section of <i>Seismological Research Letter</i> (the M5.8 2016 Pawnee earthquake in Oklahoma)
2017	Scientific committee in <i>Eastern Section SSA annual meeting</i>
2016–present	Associate editor of <i>Journal of Applied Geophysics</i>
2016	Convener in the 2016 fall meeting of AGU (Late breaking session: 3 September 2016 M5.8 Pawnee Earthquake, Oklahoma)
2016	Convener in the 2016 fall meeting of AGU (Imaging the Earth II: From Data to Processes on regional to global scales)
2016	Convener in the 2016 fall meeting of AGU (Reliability of the Green's function extracted from ambient noise)
2016	Guest editor for the August 2016 special issue of <i>INTERPRETATION</i> (Ambient noise)
2015	Guest editor for the August 2015 special issue of <i>The Leading Edge</i> (Microseismic source mechanisms)
2016	Convener in the 2016 annual meeting of SSA (Theoretical and methodological innovations for 3D/4D seismic imaging of near-surface, crustal, and global scales)
2015	Convener in the 2015 fall meeting of AGU (Progress in Ambient Seismic Field Studies Driven by Complete Wavefields Initiatives)
2015	Convener in the 2015 annual meeting of SSA (Seismic imaging and monitoring of Near-surface, and Crustal and Global Scales: Recent Advances and Future Directions)
2014	Convener in the 2014 annual meeting of SSA (Advances in seismic imaging and monitoring)
2014	Organizer for a post-convention workshop at the 2014 annual meeting of SEG (Microseismic source mechanisms)
2010–2011	Committee chairman at SEG Kyoto University student chapter
2009–2010	Treasurer at SPE Kyoto University student chapter

Publications

Journal Articles

- s1 Xiaowei Chen, **Nori Nakata**, Jackson Haffener, Colin Pennington, Jefferson Chang, Xiaohui He, Zhongwen Zhan, and Sidao Ni; Is the Pawnee earthquake expected? Interplay among injection, faults and foreshocks, (*under review*)
- s2 Norman H. Sleep and **Nori Nakata**; Nonlinear attenuation S-waves by frictional failure at shallow depths, (*under review*)
- s3 Erol Kalkan, Hasan S. Ulusoy, W. Wen, J.P.B. Fletcher, F. Wang, and **Nori Nakata**; Site properties inferred at Delaney Park downhole array in Anchorage Alaska, (*under review*)
1. **Nori Nakata**; Near-surface S-wave velocities estimated from traffic-induced Love waves using seismic interferometry with double beamforming, *Interpretation*, **4**, 4, doi:10.1190/INT-2016-0013.1, 2016.
 2. Florent Brenguier, Diane Rivet, Anne Obermann, **Nori Nakata**, Pierre Boué, Thomas Lecocq, Michel Campillo, and Nikolai Shapiro; 4-D noise-based seismology at volcanoes: Ongoing efforts and perspectives, *J. Volcanol. Geoth. Res.*, **321**, 182–195, doi:10.1016/j.volgeores.2016.04.036, 2016.
 3. Norman H. Sleep and **Nori Nakata**; Nonlinear suppression of high-frequency S waves by strong Rayleigh waves, *Bull. Seismol. Soc. Am.*, **106**, 5, 2302–2312, doi:10.1785/0120160105, 2016.
 4. Michael Behm, **Nori Nakata**, and Götz Bokelmann; Regional ambient noise tomography in the Eastern Alps of Europe, *Pure Appl. Geophys.*, **173**, 2813–2840, doi:10.1007/s00024-016-1314-z, 2016.
 5. Sjoerd de Ridder, Florent Brenguier, Farnoush Forghani, Erica Galetti, **Nori Nakata**, and Cornelis Weemstra; Introduction to special section: Ambient noise, *Interpretation*, **4**, 3, Sji, doi:10.1190/INT-2016-0627-SPSEINTRO.1, 2016.
 6. **Nori Nakata**, Pierre Boué, Florent Brenguier, Philippe Roux, Michel Campillo, and Valérie Ferrazzini; Body- and surface-wave reconstruction from seismic noise correlations between arrays at Piton de la Fournaise volcano, *Geophys. Res. Lett.*, **43**, 1047–1054, doi:10.1002/2015GL066997, 2016.
 7. **Nori Nakata** and Gregory C. Beroza; Reverse-time migration for microseismic sources using the geometric mean as an imaging condition, *Geophysics*, **81**, 2, KS51–KS60, doi:10.1190/GEO2015-0278.1, 2016.
 8. Rafal Czarny, Henryk Marcak, **Nori Nakata**, Zenon Pilecki, and Zbigniew Isakow; Monitoring velocity changes caused by underground coal mining using seismic noise, *Pure Appl. Geophys.*, **173**, 1907–1916, doi:10.1007/s00024-015-1234-3, 2016.
 9. Mehmet Çelebi, Hasan S. Ulusoy, and **Nori Nakata**; Responses of a tall building in Los Angeles, California as inferred from local and distant earthquakes, *Earthq. spectra*, **32**, 3, 1821–1843, doi:10.1193/050515EQS065M, 2016.
 10. F. Brenguier, P. Kowalski, N. Ackerley, **Nori Nakata**, et al.; Towards 4-D noise-based seismic proving of volcanoes: Perspectives from a *Large-N* experiment on Piton de la Fournaise Volcano, *Seismol. Res. Lett.*, **87**, 1, 15–25, doi: 10.1785/0220150173, 2015.
 11. **Nori Nakata** and Gregory C. Beroza; Stochastic characterization of mesoscale seismic velocity heterogeneity in Long Beach, California, *Geophys. J. Int.*, **203**, 2049–2054, doi: 10.1093/gji/ggv421, 2015.
 12. **Nori Nakata**, Wataru Tanaka, and Yoshiya Oda; Damage detection of a building caused by the 2011 Tohoku-Okii earthquake with seismic interferometry, *Bull. Seismol. Soc. Am.*, **105**, 5, 2411–2419, doi: 10.1785/0120140220, 2015.

13. Norman H. Sleep and **Nori Nakata**; Nonlinear attenuation from the interaction between different types of seismic waves and interaction of seismic waves with shallow ambient tectonic stress, *Geochem. Geophys. Geosyst.*, **16**, 2337–2363, doi: 10.1002/2015GC005832, 2015.
14. Rie Kamei, **Nori Nakata**, and David Lumley; Introduction to microseismic source mechanisms, *The Leading Edge*, **34**, 8, 876–880, doi:10.1190/tle34080876.1, 2015.
15. **Nori Nakata**, Jason P. Chang, Jesse F. Lawrence, and Pierre Boué; Body-wave extraction and tomography at Long Beach, CA, with ambient-noise interferometry, *J. Geophys. Res.*, **120**, 1159–1173, 2015.
16. **Nori Nakata**, Roel Snieder, and Michael Behm; Body-wave interferometry using regional earthquakes with multi-dimensional deconvolution after wavefield decomposition at free surface, *Geophys. J. Int.*, **199**, 1125–1137, doi: 10.1093/gji/ggu316, 2014.
17. **Nori Nakata** and Roel Snieder; Monitoring a building by deconvolution interferometry. II: Ambient-vibration analysis, *Bull. Seismol. Soc. Am.*, **104**, 1, 204–213, doi: 10.1786/0120130050, 2014.
18. **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.
19. **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.
20. **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.
21. **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).
22. **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).
23. **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.
24. 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.
25. **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.
26. **Norimitsu Nakata**; Speeding up large-scale seismic data processing using GPU, *Buturi-Tansa*, **62**, 2, 234–235, 2009 (in Japanese).

Conference Proceedings

1. Zack Spica, **Nori Nakata**, and Gregory C. Beroza; Ambient field analysis at Groningen gas field, *2016 AGU Fall meeting*, San Francisco, California, USA, 12–16 December 2016.
2. **Nori Nakata**, Gregory C. Beroza, and William L. Ellsworth; Seismicity and structure changes following the 2016 Kumamoto earthquake, *2016 AGU Fall meeting*, San Francisco, California, USA, 12–16 December 2016.
3. **Nori Nakata**; Seismicity and structure responses following the 2016 Kumamoto earthquake, *11th Joint meeting U.S.-Japan Natural Resources Panel on Earthquake Research*, Napa, CA, USA, 16–18 November 2016 (*invited*).
4. **Nori Nakata**, Gregory C. Beroza, Junzhe Sun, and Sergey Fomel; Migration-based passive source imaging for continuous data, *86th SEG annual meeting*, Dallas, TX, USA, 15–21 October 2016.
5. Junzhe Sun, Zhiguang Xue, Sergey Fomel, Tiejuan Zhu, and **Nori Nakata**; Full waveform inversion of passive seismic data with unknown sources, *86th SEG annual meeting*, Dallas, TX, USA, 15–21 October 2016.
6. **Nori Nakata** and Gregory C. Beroza; Assessment of predictive values of site response based on GMPE approaches using a Large-N array, *2016 SCEC annual meeting*, Palm Springs, CA, USA, 11–14 September 2016.
7. **Nori Nakata** and Gregory C. Beroza; Characterization of spatial variability of ground motion using a very dense array at Long Beach, California, *2016 SSA annual meeting*, Reno, Nevada, USA, 20–22 April 2016.
8. **Nori Nakata**, Gregory C. Beroza, and Victor M. Cruz-Atienza; Imaging low-frequency earthquakes with geometric-mean reverse time migration, *2015 AGU Fall meeting*, San Francisco, California, USA, 14–18 December 2015.
9. **Nori Nakata**, Pierre Boué, and Gregory C. Beroza; Body-wave retrieval and imaging from ambient seismic fields with very dense arrays, *2015 AGU Fall meeting*, San Francisco, California, USA, 14–18 December 2015 (*invited*).
10. Florent Brenguier, **Nori Nakata**, et al; Towards 4-D noise-based seismic probing of volcanoes: Perspectives from a Large-N Nodal experiment on Piton de la Fournaise volcano, *2015 AGU Fall meeting*, San Francisco, California, USA, 14–18 December 2015.
11. **Nori Nakata** and Gregory C. Beroza; Data-driven characterization of subsurface structure with dense arrays at Long Beach and Diablo Canyon, California, USA, *International Workshop on Best Practices in Physics-based Fault Rupture Models for Seismic Hazard Assessment of Nuclear Installations*, Vienna, Austria, 18–20 November 2015.
12. **Nori Nakata** and Gregory C. Beroza; Reverse-time migration for microseismic sources using the geometric mean as an imaging condition, *85th SEG annual meeting*, New Orleans, Louisiana, USA, October 2015.
13. **Nori Nakata** and Gregory C. Beroza; Stochastic characterization of 3D mesoscale seismic velocity heterogeneity in Long Beach, California, *SCEC annual meeting*, Palm Springs, CA, USA, September 2015.
14. **Nori Nakata**; Analysis of ambient noise continuously recorded by 2D dense arrays, *Symposium on energy and environmental geosciences*, Tokyo, Japan, May 2015 (in Japanese).

15. **Nori Nakata** and Gregory C. Beroza; Two-way reverse-time imaging for seismic sources, *2015 SSA Annual Meeting*, Pasadena, California, USA, April 2015.
16. Norman H. Sleep and **Nori Nakata**; Nonlinear interaction of strong S-waves, surface waves, P-waves, and near-field velocity pulses in the shallow subsurface leading to nonlinear attenuation, *2015 SSA Annual Meeting*, Pasadena, California, USA, April 2015.
17. **Nori Nakata**, Jason P. Chang, and Jesse F. Lawrence; P diving wave tomography using ambient noise recorded at Long Beach, *2014 AGU Fall meeting*, San Francisco, California, USA, December 2014.
18. Pierre Boué, Laurent Stehly, **Nori Nakata**, and Gregory C. Beroza; Empirical sensitivity kernels of noise correlations with respect to virtual sources, *2014 AGU Fall meeting*, San Francisco, California, USA, December 2014.
19. **Nori Nakata**, Jason P. Chang, and Jesse F. Lawrence; Body-wave extraction and tomography at Long Beach, CA, with ambient-noise interferometry, *84th SEG annual meeting*, Denver, Colorado, USA, October 2014
20. Jason P. Chang, **Nori Nakata**, Robert G. Clapp, Biondo Biondi, and Sjoerd de Ridder; High-frequency surface and body waves from ambient noise cross-correlations at Long Beach, CA, *84th SEG annual meeting*, Denver, Colorado, USA, October 2014.
21. **Nori Nakata**, Kiwamu Nishida, and Hitoshi Kawakatsu; Wave propagation between F-net and NEC-ESSArray retrieved from ambient noise, *SCEC annual meeting*, Palm Springs, CA, USA, September 2014.
22. Pierre Boué, Laurent Stehly, **Nori Nakata**, and Gregory C. Beroza; Empirical sensitivity kernels of noise correlations with respect to virtual sources, *SCEC annual meeting*, Palm Springs, CA, USA, September 2014.
23. **Nori Nakata**; Body-wave extraction from ambient noise recorded by a dense array, *Scattered wave workshop*, Tokyo, Japan, September 2014
24. **Nori Nakata**; Frequency-dependent time-lapse velocity changes caused by the 2011 Tohoku-Oki earthquake, *Joint SEG/AGU Summer Research Workshop: Advances in Active+Passive "Full Wavefield" seismic imaging: from reservoirs to plate tectonics*, Vancouver, Canada, July 2014
25. Kazuya Shiraishi and **Nori Nakata**; Seismic interferometry in image domain using reverse time migration, *130th SEGJ Conference*, Tokyo, May 2014 (in Japanese)
26. Jason P. Chang, Taylor Dahlke, **Nori Nakata**, and Biondo Biondi; Resolving subsurface structure from cross-correlations of continuously recorded ambient noise at Long Beach, CA, *Spring 2014 Conference; Big Data for Energy and Environment*, Stanford, CA, USA, May 2014
27. **Nori Nakata** and Jesse Lawrence; Depth constraint of velocity changes caused by the 2011 Tohoku-Oki earthquake, *2014 SSA Annual Meeting*, Anchorage, Alaska, USA, April 2014
28. **Nori Nakata** and Roel Snieder; Monitoring a building using deconvolution interferometry from earthquake and ambient-noise data, *2014 SSA Annual Meeting*, Anchorage, Alaska, USA, April 2014
29. Michael Behm, **Nori Nakata**, Irene Bianchi, and Götz Bokelmann; Love and Rayleigh wave dispersion from regional ambient noise tomography in the Eastern Alps of Europe, *2014 EGU General Assembly*, EGU2014-6021, Vienna, Austria, April 2014
30. **Nori Nakata**; Application of deconvolution interferometry with both Hi-net and KiK-net data, *2013 AGU Fall Meeting*, San Francisco, California, USA, December, 2013

31. 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
32. **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
33. **Nori Nakata** and Roel Snieder; Body-wave interferometry using local earthquakes with multi-dimensional deconvolution and wavefield decomposition at free surface, *83rd SEG annual meeting*, Houston, Texas USA, September 22-27, 2013
34. **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)
35. 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
36. **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, *82nd SEG annual meeting*, Las Vegas, Nevada, USA, November 4-9, 2012
37. Roel Snieder, **Nori Nakata**, Filippo Broggin, Kees Wapenaar, and Jyoti Behura; Development in seismic interferometry: Time-lapse monitoring and autofocusing of internal multiples (invited), *82nd SEG annual meeting*, Las Vegas, Nevada, USA, November 4-9, 2012
38. Roel Snieder, Filippo Broggin, **Nori Nakata**, and Kees Wapenaar; Autofocusing of wave fields (invited), *IUGG Conference of Mathematical Geophysics*, Edinburgh, Scotland, June, 2012
39. 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
40. **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
41. **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
42. **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
43. 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
44. **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
45. 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

46. 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
47. 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
48. **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
49. **Norimitsu Nakata**, Toshifumi Matsuoka; Virtual receivers by seismic interferometry, 122nd SEGJ Conference, 52-55, Tokyo, June, 2010 (in Japanese)
50. **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, MAGo21-14, Chiba, May, 2010 (in Japanese)
51. **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
52. **Norimitsu Nakata**; Acceleration of seismic analysis using GPU, Idea Competition in SEGJ 60th anniversary, Tokyo, October, 2008 (in Japanese)
53. **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)
54. 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)
55. **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)

Invited talks and lectures

1. **Nori Nakata**; Big data in seismology ~ Large-N and Large-T ~, *Lamont-Doherty Earth Observatory*, New York, USA, November 2016
2. **Nori Nakata**; Seismic amplification and scattering in sedimentary basins, *SCEC/ERI/DPRI International Summer School on Earthquake Science*, California, USA, July 2016
3. **Nori Nakata**; Large-N array for near-surface imaging, *ETH*, Zurich, Switzerland, June 2016
4. **Nori Nakata**; Body-wave extraction from ambient noise, *LMU*, Munich, Germany, June 2016
5. **Nori Nakata**; Large-N and Large-T data are Future of seismology, *LMU*, Munich, Germany, June 2016
6. **Nori Nakata**; Large-N and Large-T data are Future of seismology, *UWA*, Perth, Australia, May 2016

7. **Nori Nakata**; Body-wave imaging using the ambient seismic field, *University of Southern California*, Los Angeles, CA, USA, March 2016.
8. **Nori Nakata**; Large-N array for ambient noise correlation, *Harvard University*, Cambridge, MA, USA, February 2016.
9. **Nori Nakata**; Data-driven characterization of subsurface structure using Large-N array, *Massachusetts Institute of Technology*, Cambridge, MA, USA, February 2016.
10. **Nori Nakata**; Data-driven characterization of subsurface structure for high-frequency ground-motion prediction with dense arrays at Long Beach and Diablo Canyon, California, USA, *Lawrence Livermore National Laboratory*, Livermore, CA, USA, February 2016.
11. **Nori Nakata**; Reverse-Time Migration for Microseismic Sources ~Using the Geometric Mean as an Imaging Condition~, *University of Texas, Austin*, Austin, TX, USA, December 2015.
12. **Nori Nakata**; Body-wave imaging using the ambient seismic field, *University of Vienna*, Vienna, Austria, November 2015.
13. **Nori Nakata**; Body-wave imaging using the ambient seismic field, *King Abdulah University of Science and Technology*, Thuwal, Saudi Arabia, November 2015.
14. **Nori Nakata**; Body-wave imaging using the ambient seismic field, *Stanford University*, Stanford, CA, USA, November 2015.
15. **Nori Nakata**; Body-wave reconstruction, imaging, and monitoring from ambient seismic fields, *University of California, Berkeley*, Berkeley, CA, USA, September 2015.
16. **Nori Nakata**; Body-wave reconstruction from ambient seismic fields, *Institut des Sciences de la Terre*, Grenoble, France, May 2015.
17. **Nori Nakata**; Ambient-noise body-wave tomography at Long Beach, California, *California Institute of Technology*, Pasadena, CA, USA, April 2015.
18. **Nori Nakata**; Ambient-noise body-wave tomography at Long Beach, California, *Colorado School of Mines*, Golden, CO, USA, March 2015.
19. **Nori Nakata**; Time-lapse changes in wave velocities related to 2011 Tohoku earthquake revealed by correlation analysis, *US Geological Survey*, Menlo Park, CA, USA, April 2014.
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