

Domniki Asimaki¹, Sc.D.

California Institute of Technology
 Mechanical and Civil Engineering
 1200 E. California Boulevard
 Pasadena, CA 91106

phone: (626)-395-2742
 email: domniki@caltech.edu

EDUCATION

Massachusetts Institute of Technology Sc. D. in Civil Engineering	Cambridge, MA <i>2000-, Defended 2004</i>
Massachusetts Institute of Technology M.S. in Civil Engineering	Cambridge, MA <i>February 2000</i>
National Technical University of Athens Diploma in Civil Engineering	Athens, GREECE <i>July 1998</i>

EMPLOYMENT

California Institute of Technology Professor in Mechanical and Civil Engineering	Pasadena, CA <i>2014-present</i>
Georgia Institute of Technology Associate Professor in Civil Engineering	Atlanta, GA <i>2011-2014</i>
Georgia Institute of Technology Assistant Professor in Civil Engineering	Atlanta, GA <i>2005-2011</i>
University of California Post Doctoral Research in Strong Motion Seismology	Santa Barbara, CA <i>2004-2005</i>
National Technical University of Athens Graduate Research Fellow	Athens, GREECE <i>2002</i>
Geodynamique et Structures Member, European Research Training Network SAFERR	Paris, FRANCE <i>2000-2001</i>
Massachusetts Institute of Technology Graduate Research Assistant	Cambridge, MA <i>1998-2000</i>

RESEARCH INTERESTS

My research combines geotechnical engineering, computational mechanics and structural dynamics to study geological features and geotechnical systems –such as ridges, valleys, dams, tunnels, building foundations and offshore structures– with emphasis on their performance during natural and man-made hazards. I am particularly interested in distilling the understanding we gain from high-fidelity numerical simulations and field data to develop simplified design models of urban infrastructure and critical facilities resilient to hazards.

¹also known as Dominic Asimaki

DISSERTATION

Title: "Topography Effects in the 1999 Athens Earthquake: Engineering Issues in Seismology"

Advisor: Prof. Eduardo Kausel

I investigated how local stratigraphy, material heterogeneity and nonlinear soil response can alter the focusing mechanism at the vertex of cliff-type topographies, and how the free-field response is further modified on account of soil-structure interaction. My thesis shows that topography and local soil conditions need to be accounted for simultaneously for the prediction of site amplification factors, especially when earthquake motions are strong enough to elicit nonlinear soil behavior.

ACADEMIC HONORS AND AWARDS

- 2012 Shamsher Prakash Research Award
- Two journal publications among 25 Most downloaded articles of Soil Dynamics and Earthquake Engineering
- 2012 Excellence in Research Award, School of Civil and Environmental Engineering, Georgia Institute of Technology, June
- 2009 Arthur Casagrande Professional Development Award, ASCE, GeoInstitute, August
- 2008 Bill Schutz Junior Faculty Teaching Award, School of Civil and Environmental Engineering, Georgia Institute of Technology, June
- Best Poster Award: Mid-America Earthquake Center, Research Assistant Symposium, October 22-23, 1999, University of Illinois at Urbana-Champaign
- Best Student Paper Award: 71st Annual Meeting of the Eastern Section, Seismological Society of America, September 19-21, 1999, Memphis TN

SCHOLARLY ACCOMPLISHMENTS

BOOKS AND PARTS OF BOOKS

1. D. Asimaki (2014). "Site Response: 3D Aspects" in *Encyclopedia of Earthquake Engineering*, ed. Michael Beer, Edoardo Patelli, Ioannis Kougioumtzoglou and Ivan Siu-Kui Au, Springer (in preparation)
2. D. Asimaki (2006). "Inverse Analysis of Weak and Strong Motion Downhole Array Data: A Hybrid Optimization Algorithm" in *Intelligent computational paradigms in earthquake engineering*, ed. N. Lagaros and K. Tsompanakis, Idea Group Publishing, ISBN 1-59904-100-6, pp 444
3. D. Asimaki, Li W.* and Fragiadakis M. (2010) "Site Effects in Ground Motion Models for Structural Performance Estimation" in *Computational Methods in Earthquake Engineering*, ed. M. Papadrakakis et al, ECCOMAS, publisher Springer Netherlands, Vol 21, 67-97

REFEREED PUBLICATIONS

ARTICLES IN REFEREED ARCHIVAL JOURNALS

Articles in review and in preparation

4. Jeong S.*, Asimaki D., Dafni J. and Wartman J. (2014). *Virtual* centrifuge experiments on topography effects, Soil Dynamics and Earthquake Engineering (in review)
5. Jeong S.* and Asimaki D. (2014). Topographic amplification in nonlinear pressure-dependent media: A parametric study, Bulletin of the Seismological Society of America (in preparation)
6. Mohammadi K.*, Asimaki D. and Fradkin L. (2014). Infinite wedge revisited: A review, ASCE Journal of Engineering Mechanics (in preparation)
7. Mohammadi K.* and Asimaki D. (2014). A unified representation of topography effects in convex two-dimensional features, Bulletin of the Seismological Society of America (in preparation)
8. Mohammadi K.* and Asimaki D. (2014). Topographic amplification for inclined incident motion, Bulletin of the Seismological Society of America (in preparation)
9. Mohammadi K.* and Asimaki D. (2014). Three dimensional topography effects: Parametric investigation and site-specific analyses, Bulletin of the Seismological Society of America (in preparation)

*Indicates graduate student supervised by D. Asimaki

Articles published

10. Zacharenaki, A., Fragiadakis, M., Asimaki, D., and Papadrakakis, M. (2014). Bias assessment in Incremental Dynamic Analysis due to record scaling, *Soil Dynamics and Earthquake Engineering*, 67, 158-168
11. Asimaki D. and Jeong S.* (2012). Ground motion amplification observations at Hotel Montana during the M7.0 2010 Haiti Earthquake: Topography, Stratigraphy or both?, *Bulletin of the Seismological Society of America*, 103(5), 2577-2590
12. Varun V.*, Asimaki D. and Shafieezadeh A. (2012). Soil-Pile-Structure Interaction Simulations in Liquefiable Soils via Dynamic Macroelements: Formulation and Validation, Invited paper, *Soil Dynamics and Earthquake Engineering*, Jose Roesset Special Issue, ([dx.doi.org/10.1016/j.soildyn.2012.03.008](https://doi.org/10.1016/j.soildyn.2012.03.008))
13. Li W. * and Asimaki D. and Fragiadakis M. (2012). Site response modeling uncertainty in rupture-to-rafter broadband ground motion simulations, *Earthquake Spectra*, 28(3), 859-883
14. Asimaki D., Kallivokas L.F., Kang J.W., Li W.*, Kucukcoban S. (2012). Time-domain forward and inverse modeling of lossy soils with frequency-independent Q for near-surface applications, *Soil Dynamics and Earthquake Engineering*, 43, 129-159
15. Asimaki D., Ledezma C., Gonzalo A. Montalva, Tassara A., Mylonakis G. and Boroschek R. (2012). Site Effects and Damage Patterns, Special Issue on the Maule 8.8 Earthquake, *Earthquake Spectra*, 28(1), S55-74
16. Bray, J., K. Rollins, T. Hutchinson, R. Verdugo, C. Ledezma, G. Mylonakis, D. Asimaki, G. Montalva, P. Arduino, S. M. Olson, R. Kayen, Y. M.A. Hashash, and G. Candia (2012) Effects of Ground Failure on Buildings, Ports, and Industrial Facilities, , Special Issue on the Maule 8.8 Earthquake, *Earthquake Spectra*, 28(1), S97-S118
17. Varun V.* and Asimaki D. (2012). A Generalized Hysteresis Model for Biaxial Response of Pile Foundations in Cohesionless Soils, *Soil Dynamics and Earthquake Engineering*, 32(1), 56-70 (Top 25 Most Downloaded SDEE Papers)
18. Asimaki D. and Li W. * (2012). Site- and ground motion-dependent nonlinear effects in seismological model predictions, *Soil Dynamics and Earthquake Engineering*, 32(1), 143-151 (Top 25 Most Downloaded SDEE Papers)
19. Fragaszy, R.J., Santamarina, J.C., Amekudzi, A., Asimaki, D., Bachus, R., Burns, S.E., Cha, M.S., Cho, G.C., Cortes, D.D., Dai et al (2011), Sustainable Development and Energy Geotechnology: Potential Roles for Geotechnical Engineering, *KSCE Journal of Civil Engineering*, 15(4), 611-621
20. Asimaki D., Kalos A.* and Li W.* (2010). A wavelet-based seismogram inversion algorithm for the in-situ characterization of nonlinear soil behavior, *Pure and Applied Geophysics*, 168(10), 1669 - 1691
21. Li W.* and Asimaki D. (2010). Site and ground motion dependent parametric uncertainty of nonlinear site response analyses in earthquake simulations, *Bulletin of the Seismological Society of America*, 100(3), 954-968
22. Li W.* and Asimaki D. (2010). Simulating soil stiffness degradation in transient site response predictions, *Soil Dynamics and Earthquake Engineering* 30(5), 299-309
23. Varun V.*, Asimaki D. and Gazetas G. (2009). A simplified model for the transverse response of large diameter caisson foundations, *Soil Dynamics and Earthquake Engineering*, 29(2), 268-291.
24. Wu C., Peng Z. and Asimaki D. (2009). Temporal changes in site response associated with strong ground motion of 2004 Mw6.6 Mid-Niigata earthquake sequences in Japan, *Bulletin of the Seismological Society of America*, 99(6), 3487-3495
25. Asimaki D., Li W.*, Steidl J. and Schmedes J. (2008). Quantifying nonlinearity susceptibility via site response modeling uncertainty at three sites in the Los Angeles basin, *Bulletin of the Seismological Society of America*, 98(5), 2364-2390
26. Tsigginos C., Gerolymos N., Asimaki D. and Gazetas G. (2008). Seismic response of bridge pier on rigid foundation in soil stratum, *Earthquake Engineering and Engineering Vibration*, 7(1), 33-43.
27. Asimaki D., Li W.*, Steidl J. and Tsuda K. (2008). Site amplification and attenuation via downhole array inversion: A comparative study of the 2003 Myiagi-Oki aftershock sequence, *Bulletin of the Seismological Society of America*, 98(1), 301-330. 2
28. Asimaki D. and Kausel E. (2007). Modified topographic amplification factors for a single-faced slope due to kinematic soil-structure interaction, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 133(11), 1414-1431
29. Asimaki D. and Steidl J.H. (2007). Inverse analysis of weak and strong motion downhole array data from the Mw7.0 Sanriku-Minami Earthquake, *Soil Dynamics and Earthquake Engineering*, 27(1), 73-92

30. Tsuda K., Steidl J.H., Archuleta R. and Asimaki D. (2006). Site response estimation for 2003 Miyagi-Oki Earthquake sequence considering nonlinear site response, *Bulletin of the Seismological Society of America*, 96(4A), 1474-1482
31. Asimaki D., Steidl J.H. and Liu P.C. (2006). Attenuation and velocity structure for site response analyses via downhole seismogram inversion, *Pure and Applied Geophysics*, 163(1), 81-118
32. Asimaki D., Kausel E. and Gazetas G. (2005). Soil-dependent topographic effects: A case study from the 1999, Athens Earthquake, *Earthquake Spectra*, 21(4), 929-966
33. Asimaki D., Kausel E. and Gazetas G. (2005). Wave propagation and soil-structure interaction on a cliff crest during the 1999 Athens Earthquake, *Soil Dynamics and Earthquake Engineering*, 25, 513-527
34. Asimaki D., Gazetas G. and Kausel E. (2005). Effects of local soil conditions on the topographic aggravation of seismic motion: Parametric investigation and recorded field evidence from the 1999 Athens Earthquake, *Bulletin of the Seismological Society of America*, 95(3), 1059-1089
35. Asimaki D. and Gazetas G. (2004). Soil and topographic amplification on canyon banks and the Athens 1999 Earthquake, *Journal of Earthquake Engineering*, 8(1), 1-44
36. Asimaki D., Pecker A., Popescu R. and Prevost J.H. (2003). Effects of spatial variability of soil properties on surface ground motion, *Journal of Earthquake Engineering*, 7(1), 1-44
37. Asimaki D. and Kausel E. (2002). An equivalent linear algorithm with frequency- and pressure-dependent moduli and damping for the seismic analysis of deep sites, *Soil Dynamics and Earthquake Engineering*, 22, 959-965
38. Kausel E. and Asimaki D. (2002). Seismic simulation inelastic soils via frequency-dependent moduli and damping, *Journal of Engineering Mechanics*, ASCE, 128(1), 34-47
39. Asimaki D., Kausel E. and Whittle A.J. (2000). A model for dynamic shear modulus and damping for granular soils, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 126(10), 859-869

PEER-REVIEWED PROCEEDINGS (FULL PAPER REVIEW)

40. Jeong S. and Asimaki D. (2015). Validation and simulation of strong motion topography effects for pressure-dependent soils, *Proc 6th International Conference in Earthquake Geotechnical Engineering*, 14-16 November, 2015, Christchurch, New Zealand
41. Mohammadi K. and Asimaki D. (2015). Parameterization of 3D topography effects: From idealized geometries to true ground surface models, *Proc 6th International Conference in Earthquake Geotechnical Engineering*, 14-16 November, 2015, Christchurch, New Zealand
42. Nikolaou S., Zekkos D., Asimaki D. and Ginsaz R. (2015). Reconnaissance Highlights of the 2014 Sequence of Earthquakes in Cephalonia, Greece, *Proc 6th International Conference in Earthquake Geotechnical Engineering*, 14-16 November, 2015, Christchurch, New Zealand
43. Varun V. * and Asimaki D. (2011). A nonlinear macroelement for dynamic soil-structure interaction analyses of pile foundations in liquefiable soils, *Proc EURO DYN2011, 8th International Conference on Structural Dynamics*, 4-6 July 2011, Leuven, Belgium
44. Varun V. * and Asimaki D. (2011). A nonlinear macroelement for dynamic soil-structure interaction analyses of pile foundations in liquefiable soils, *Proc. 5th International Conference on Earthquake Geotechnical Engineering*, January 10-13, 2011, Santiago, Chile
45. Varun V. * and Asimaki D. (2009). Nonlinear macroelements for performance-based design of pile-supported structures in liquefiable soils, *Proc. International Conference on Performance-Based Design (IS-Tokyo 2009)*, June 15-18, 2009, Tsukuba, Japan
46. Varun V. * and Asimaki D. (2008). Efficient integration of soil-structure interaction simulations in seismic risk analyses of port systems, *Proc. 14th World Conference on Earthquake Engineering (14WCEE)*, October 12-17, 2008, Beijing, China
47. Asimaki D., M. Fragiadakis and W. Li* (2008). Site response modeling uncertainty in rupture-to-rafter broadband ground motion simulations, *Proc. 14th World Conference on Earthquake Engineering (14WCEE)*, October 12-17, 2008, Beijing, China
48. Varun V.* and Asimaki D. (2008). A nonlinear dynamic macroelement for soil-structure interaction analyses of pile-supported wharfs, *Proc. 4th Decennial Geotechnical Earthquake Engineering and Soil Dynamics Conference (GEESD)*, ASCE Geo-Institute EESD Committee, May 18-22, 2008, Sacramento, CA
49. Asimaki, W. Li*, J.H. Steidl and J. Schmedes (2008). Modeling nonlinear site response uncertainty in the Los Angeles Basin, *Proc. 4th Decennial Geotechnical Earthquake Engineering and Soil Dynamics Conference (GEESD)*, ASCE Geo-Institute EESD Committee, May 18-22, 2008, Sacramento, CA

50. Varun V.*, Asimaki D. and Gazetas G. (2008). A model for the linear analysis of laterally loaded caisson foundations, *Proc. GeoCongress 2008: The Challenge of Sustainability in the Geoenvironment*, Annual Congress of the Geo-Institute of ASCE March 9-12, 2008, Sheraton New Orleans, New Orleans, Louisiana, USA
51. Asimaki D., Li W.*, J.H. Steidl and J. Schmedes (2007). From research to practice in nonlinear site response: Observations and simulations in the LA Basin, *Proc. 4th International Conference on Earthquake Geotechnical Engineering*, Thessaloniki, Greece, 25-28 June 2007
52. Asimaki D. (2006). Amplification and Attenuation of Seismic Ground Motion: The Mw7.0 Myiagi-Oki Earthquake, *Proc. First European Conference on Earthquake Engineering and Seismology*, Geneva, Switzerland, 3-8 September 2006
53. Asimaki D. and Steidl J. (2006). System Identification of Layered Profiles through Downhole Array Seismogram Inversion: The Mw7.0 Myiagi-Oki Earthquake, *Proc. International Conference on Physical Modeling in Geotechnics*, The Hong-Kong University of Science and Technology, Hong-Kong, August 4-6, 2006
54. Asimaki D. and Steidl J. (2006). Understanding Weak and Strong Motion Site Effects through Downhole Array Seismogram Inversion, *Proc. 100th Anniversary Earthquake Conference*, San Francisco, CA, April 18-22, 2006
55. Asimaki D. (2006). Spatial Variability of Soil Properties in Forward and Inverse Site Response Analyses, *Proc. Geocongress Geotechnical Engineering in the Information Technology Age*, Atlanta, GA, February 26 - March 1, 2006
56. Asimaki D. and Steidl J. (2006). A hybrid optimization algorithm for downhole seismogram inversion: Theory and Applications, *Proc. Geocongress Geotechnical Engineering in the Information Technology Age*, Atlanta, GA, February 26 - March 1, 2006
57. Asimaki D. and Steidl J. (2005). Velocity and attenuation inversion in downhole arrays via a hybrid optimization algorithm, *Proc. 11th IACMAG International Conference*, Turin, Italy, June 19-24, 2005.
58. Asimaki D., Kausel E. and Gazetas G. (2004). Site effects and soil-structure interaction in the 1999 Athens Earthquake: Large-scale nonlinear simulations, *Proc. International Conference on Cyclic Behavior of Soils and Liquefaction Phenomena*, Bochum, Germany, March 31 - April 02, 2004
59. Asimaki D., Kausel E. and Gazetas G. (2004). Topography effects in the 1999 Athens Earthquake: Engineering issues in seismology, *Proc. 11th ICSDEE and 3rd ICEGE*, UC Berkeley, January 7-9, 2004, Vol. 2, 31-38
60. Asimaki D. and Kausel E. (2001). An equivalent linear algorithm with frequency- and pressure-dependent moduli and damping for the seismic analysis of deep sites, *Proc. 10th Soil Dynamics and Earthquake Engineering Conference*, Drexel University, Philadelphia, October
61. Asimaki D. and Kausel E. (2000). Frequency- and pressure-dependent dynamic soil properties for the seismic analysis of deep sites, *Proc. 14th Engineering Mechanics Conference (EM2000)*, ASCE, The University of Texas at Austin, Austin, TX, May

OTHER PUBLICATIONS

NON-REFEREED CONFERENCE AND WORKSHOP PROCEEDINGS

1. Varun V.* and Asimaki D. (2012). A nonlinear macroelement for dynamic soil-structure interaction analyses of pile foundations in liquefiable soils, *Proc. II PBD Second International Conference on Performance Based Design in Geotechnical Earthquake Engineering*, May 28-30, 2012, Taormina, Italy
2. Wood, C. M., Cox B. R., Asimaki D., and Rodriguez-Marek A. (2012). Topographic Effects from Longwall Coal Mining Seismicity: Phase I Experimental Setup and Results, *Proc. II PBD Second International Conference on Performance Based Design in Geotechnical Earthquake Engineering*, May 28-30, 2012, Taormina, Italy
3. Asimaki D. and Jeong S.* (2011). Coupled Topography-Stratigraphy Effects During the M7.0 Haiti Earthquake: The case of Hotel Montana, *Proc. 4th IASPEI/IAEE International Symposium on the Effects of Surface Geology on Seismic Motion*, August 23-26, 2011, University of California Santa Barbara, CA
4. Pettiti A., Foti S. and Asimaki D. (2010). Numerical study of the performances of cantilever walls subjected to seismic loading, *Proc. 5th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics and Symposium in Honor of Professor I.M. Idriss*, May 24-29, 2010, San Diego CA

5. Varun V.*, and Asimaki D. (2009). Nonlinear macroelements for performance-based design applications of pile-supported structures, Proc. 2nd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), June 22-24, 2009, Rhodes, Greece
6. Li W. *, Asimaki D. and Fragiadakis M. (2009). Nonlinear site response modeling variability in rupture-to-rafters ground motion simulations, Proc. 2nd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), June 22-24, 2009, Rhodes, Greece
7. Zacharenaki A., Fragiadakis M., Asimaki D. and Papadrakakis M. (2009). The impact of using scaled ground motion records for seismic capacity assessment, Proc. 2nd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), June 22-24, 2009, Rhodes, Greece
8. Li W.*, and Asimaki D. (2008). Nonlinear site response parametric uncertainty in strong motion simulations via hysteretic behavior variability, Invited paper, Proc. 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008) 8th World Congress on Computational Mechanics, Mini-symposium Multiscale Modeling and Uncertainty Quantification of Heterogeneous Materials, 30 June - 4 July, 2008, Venice, Italy
9. Asimaki D., Varun V.* and Gazetas G. (2007). A simplified model for the linear analysis of transversely loaded caisson foundations, Invited paper Proc. International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering COMPDYN 2007, Rethymno, Crete, Greece, 11-14 June 2007.
10. Asimaki D. and Varun V.* (2007). Nonlinear 3D finite element simulations of soil-structure interaction for pile-supported wharfs: Preliminary results from the NEES-GC project on Seismic Risk Mitigation for Port Systems, Invited paper Proc. International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering COMPDYN2007, Rethymno, Crete, Greece, 11-14 June 2007.
11. Asimaki D. and Steidl J.M. (2007). Investigating energy attenuation mechanisms in the near surface via down-hole array seismogram inversion, Invited paper Proc. International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering COMPDYN2007, Rethymno, Crete, Greece, 11-14 June 2007
12. Varun V. *, Asimaki D., and Gazetas G. (2007). Linear transient response of deep rigid foundations: From 3D finite element simulations to design, Proc. 2nd Greece-Japan Workshop on Seismic Design, Observation and Retrofit of Foundations, Tokyo, Japan, 3-4 April 2007
13. Asimaki D., Varun V.* and Gazetas G. (2007). A simplified model for the linear analysis of transversely loaded caisson foundations, Invited paper, Proc. 4th US-Japan Workshop on Soil-Structure Interaction (4SSIWS), Tsukuba, Japan, 28-30 March 2007
14. Asimaki D., Kausel E. and Gazetas G. (2005). Topography-Soil-Structure Interaction Effects during the 1999 Athens Earthquake, Proc. 1st Greece-Japan Workshop on Seismic Design, Observation, Retrofit of Foundations, G. Gazetas, Y. Goto and T. Tazoh editors, Athens, Greece, October 11-12.
15. Steidl J., Asimaki D., Tsuda K. and Oakes J. (2004). Using borehole data for ground motion prediction: separating source, path and site effects, Proc. CSNI Workshop, Tsukuba, Japan, November 15-19, 2004.
16. Asimaki D. and Kausel E. (2004). Strong motion site effects in the 1999 Athens Earthquake, Proc. 4th US-Japan SSI Workshop, Menlo Park, CA, March 29-30, 2004
17. Asimaki D. and Pecker A. (2002). Effects of spatial variability of soil properties on surface ground motion, Proc. 4th Symposium on Implications of Recent Earthquakes on Seismic Risk, Tokyo Institute of Technology, Tokyo, Japan
18. Asimaki D. and Kausel E. (2001). Frequency and pressure-dependent dynamic properties for the seismic analysis of deep sites, Proc. 2nd US-Japan Workshop on Soil-Structure Interaction, Tsukuba Science City, Japan, March 6-8.
19. Asimaki D. and Kausel E. (2001). Seismic analysis of deep sites using frequency and pressure-dependent dynamic soil properties, Proc. Conference on Earthquake Resistant Engineering Structures (ERES), Malaga, Spain, August.
20. Asimaki D. and Kausel E. (2001). Frequency- and pressure-dependent dynamic soil properties for the seismic analysis of deep sites, Proc. 4th National Conference on Geotechnical and Geoenvironmental Engineering, Athens, Greece, June (in Greek)
21. Asimaki D., Chatzigiannelis I., Gerolimos N. and Gazetas G. (2001). Lateral response of caisson foundations, Proc. 4th National Conference on Geotechnical and Geoenvironmental Engineering, Athens, Greece, June (in Greek)

22. Gazetas G., Psarropoulos P., Asimaki D. and Kallou P. (2001). Soil and topographic amplification of the seismic motion in the Parnitha Earthquake, Proc. 4th National Conference on Geotechnical and Geoenvironmental Engineering, Athens, Greece, June (in Greek)

PRESENTATIONS

KEYNOTE AND PLENARY PRESENTATIONS

1. *Nonlinear Site Response in Ground Motion Predictions*, AEG Shlemon Specialty Conference, Advancing New Madrid Region Time-History Determination, Memphis TN, June 3-5, 2009
2. *Beyond Horizontally Layered Soils: Site Effects in Three-Dimensions*, COMPDYN 2015 5th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Crete Island, Greece, 25-27 May 2015

INVITED TALKS AND SEMINAR PRESENTATIONS

3. *Site effects in three dimensions: Theory, experiments and numerical simulations*, Invited seminar, University of California, San Diego, February 4, 2015
4. *Dynamics of Soils and Foundations: From 3D Numerical Simulations to Design*, Invited seminar, Caltrans DES Education Committee Presentation Series, Sacramento, CA, November 18, 2014
5. *Site effects in three dimensions: Theory, experiments and numerical simulations*, Invited seminar, University of Southern California, November 11, 2014
6. *Site effects in three dimensions: Theory, experiments and numerical simulations*, Invited seminar, University of California, Los Angeles, October 28, 2014
7. *Virtual experiments and analyses of dynamic soil-structure interaction problems*, Invited seminar, Geosyntec Consultants Inc., Atlanta GA, December 20, 2013
8. *Validating nonlinear site response prediction methodologies for SCEC broadband ground motion simulations*, SCEC Ground Motion Simulation Validation Workshop, Los Angeles CA, April 3-4, 2013
9. *Integrating nonlinear site effects in broadband ground motion simulations*, Invited seminar, Department of Mechanical and Civil Engineering, Caltech, Pasadena CA, April 29, 2013
10. *Integrating the top 1% of the crust in earthquake simulations*, Invited seminar, Department of Civil and Environmental Engineering, MIT, Boston MA, April 10, 2013
11. *Observations, simulations and integration of nonlinear site effects in ground motion predictions*, International Workshop of Special Project for Reducing Vulnerability for Urban Mega Earthquake Disasters, Tohoku JAPAN, October 29-31, 2012
12. *Nonlinear site and topography effects in ground motion predictions: Observations, Hypotheses and Lessons to be learned*, US-Japan Natural Resources (UJNR) panel on seismology, Denver CO, October 9-12, 2012
13. *Dynamic soil-structure interaction analyses of pile foundations in liquefiable soils: Numerical Formulation and Validation*, Invited Seminar, Department of Civil Engineering, Virginia Tech, April 11, 2012
14. *Geotechnical Engineering Reconnaissance of the M8.8 Chile Earthquake*, Invited Talk, ASCE Georgia Chapter Geo Institute, March 15, 2011
15. *A non-linear dynamic macroelement for dynamic soil-structure interaction analyses of pile foundations in liquefiable soils*, Invited Seminar, Department of Civil Engineering, Purdue University, March 24, 2011
16. *Geotechnical Engineering Reconnaissance of the M8.8 Chile Earthquake*, Invited Seminar, Georgia Tech Chapter of the Earthquake Engineering Research Institute, April 7, 2010
17. *A wavelet-based seismogram inversion algorithm for the in-situ characterization of nonlinear soil behavior*, Invited Speaker, Workshop on Inverse Problems and System Identification of Geo Systems, Inverse Problem Center at RPI, March 29-30, 2010
18. *A nonlinear macroelement for dynamic soil-structure interaction analyses of pile foundations in liquefiable soils*, Invited Seminar, Department of Civil and Environmental Engineering, Rice University, Houston TX, February 15, 2010
19. *Synthetic ground motions from rupture-to-rafter and the role of nonlinear soil response*, Invited Seminar, Department of Civil, Architectural and Environmental Engineering, Drexel University, Philadelphia PA, February 20, 2009

20. *Physics based earthquake simulations from source-to-structure and the role of site response predictions*, Invited Seminar, Department of Civil and Environmental Engineering, University of Texas at Austin, Austin TX, March 11, 2009
21. *Rupture-to-rafters synthetic ground motions and the role of nonlinear site response predictions*, Invited Seminar, Department of Civil and Environmental Engineering, University of Southern Carolina, Columbia, SC, November 14, 2008
22. *Rupture-to-rafters synthetic ground motions and the role of nonlinear site response predictions*, Invited Seminar, Structures Group Seminar Series, Department of Civil and Environmental Engineering, Georgia Institute of Technology, GA, October 10, 2008
23. *From seismic record pairs to hazard mitigation: Examples from the 2003 Myiagi-Oki earthquake sequence*, Invited Seminar, Department of Civil and Environmental Engineering, University of Southern California, Los Angeles, CA, March 7, 2007
24. *Strong motion ground response effects: State-of-the-art vs. Observations*, Invited Seminar, Department of Structural Engineering, University of California San Diego, San Diego, CA, April 3, 2006
25. *Strong motion ground response effects: State-of-the-art vs. Observations*, Joint NSF CMS-EAS Geophysics Invited Seminar, Arlington, VA, March 9, 2006
26. *Downhole Array Seismogram Inversion: Emerging Trends in Strong Motion Site Response Analysis* USGS Invited Seminar, Memphis, TN, November 20, 2005
27. *Topography effects in strong ground motion: A case study*, Invited Seminar, University of California Santa Barbara, Santa Barbara, CA, March 9, 2005
28. *Topography effects in the 1999, Athens Earthquake: Engineering issues in seismology*, Invited Lecture, Seminar Series in Geotechnical Engineering, National Technical University of Athens, Athens GREECE, January 2004
29. *Effects of spatial variability of soil properties on surface ground motion*, 2nd International Rose School Seminar, Pavia, Italy, June 2002

CONFERENCE AND WORKSHOP PRESENTATIONS (WITHOUT PROCEEDINGS)

30. *Nonlinear Site Response Validation Studies Using KIK-net Strong Motion Data*, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 13-18 December 2014
31. *Dynamic Soil-Structure Interaction for Offshore Wind Monopiles: What can we learn from Earthquake Engineering?*, Research Pathways in Offshore Wind Foundations Workshop, Georgia Tech Strategic Energy Institute, Atlanta GA May 22, 2014
32. *Site-Specific Response in Validation Studies of Physics-based Earthquake Simulations*, Annual Meeting Seismological Society of America, Anchorage AK, 29-31 May, 2014
33. *Integration of nonlinear site effects in ground motion simulations for Southern California*, Annual Meeting Seismological Society of America, Salt Lake City UT, 17-19 April, 2013
34. *Topographic Effects in Strong Ground Motion - From Physical and Numerical Modeling to Design*, Joint NEES Quake Summit 2012 and NSF CMMI Engineering Research and Innovation Conference, Boston MA, July 9-12, 2012
35. *Topography Effects on a Single Slope: The Effects of SV Incidence Angle*, Annual Meeting Seismological Society of America, San Diego CA, 17-19 April, 2012
36. *Observations and Simulations of Topography Effects during the M7.0 Haiti Earthquake*, Annual Meeting Seismological Society of America, Memphis TN, April 11-13 2011
37. *Three-dimensional topographic amplification of seismic ground motion on an idealized convex feature*, Annual Meeting Seismological Society of America, Memphis TN, April 11-13 2011
38. *Seismic slope stability via maximum dynamic shear stress estimation based on 1D wave propagation theory*, Engineering Mechanics Conference, USC, Los Angeles CA, 8-11 August 2010
39. *Nonlinear Site Effects in Inelastic Structural Deformation Demand Predictions*, Seismological Society of America Annual Meeting, Portland OR, 21-23 April 2010
40. *A wavelet-based seismogram inversion algorithm for the in-situ characterization of nonlinear soil behavior*, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 13-18 December 2009
41. *Synthetic ground motions for engineering applications and the role of nonlinear site response*, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 14-19 December 2008

42. *Systematic analysis of temporal changes in site response associated with strong ground motion in Japan*, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 14-19 December 2008
43. *Efficient integration of nonlinear site response predictions in broadband ground motion models*, Inaugural International Conference of the Engineering Mechanics Institute (EM08), Department of Civil Engineering, University of Minnesota, Minneapolis, Minnesota, May 18-21, 2008
44. *Parameter uncertainty in nonlinear site response for typical sedimentary sites in Southern California*, Special Session on Source Characterization and Site Characterization, Seismological Society of America Annual Meeting, Santa Fe, New Mexico, 16-18 April 2008
45. *Ground motion amplification and the role of near-surface geology in the 2003 Myagi-Oki aftershock sequence*, Invited paper, Special Session on Site Effects on Ground Motion, Seismological Society of America Annual Meeting, Kona, Hawaii, 11-13 April 2007
46. *Integrating nonlinear site effects in broadband ground motion simulations: Observations and simulations in the Los Angeles basin*, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 11-15 December 2006
47. *Understanding Site Effects through Downhole Array Inversion*, Eastern Section, Seismological Society of America Annual Meeting, Memphis, TN, October 2005.
48. *Local attenuation and velocity structure via downhole array data inversion: A hybrid global-local optimization algorithm*, Seismological Society of America Annual Meeting, Reno, NV, April 27-29, 2005
49. *Using borehole vertical array data to determine local attenuation and velocity structures: A hybrid global-local optimization algorithm for plane wave seismogram inversion*, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, December 13-17, 2004
50. *Effects of spatial variability of soil properties on surface ground motion*, SAFERR Mid-Term Review Meeting, May 2002, Joint Research Center, Ispra, Italy.
51. *Effects of spatial variability of soil properties on surface ground motion*, SAFERR Research Training Network Round Table Meeting, September 2001, INSA, Geo-Network, Lyon, France.
52. *Frequency- and depth-dependent attenuation of strong ground motions in deep sites*, Mid-America Earthquake Center, Research Assistant Symposium, October 1999, University of Illinois at Urbana-Champaign, IL
53. *Frequency- and depth-dependent attenuation of strong ground motions in deep sites*, 71st Annual Meeting of the Eastern Section of the Seismological Society of America, Memphis, TN, September 1999

OTHER SCHOLARLY ACCOMPLISHMENTS

TECHNICAL AND POPULAR PRESS

54. *Offshore Wind Foundations: Research Needs and Innovation Opportunities*, WIND Systems magazine, <http://www.windssystemsmag.com>, October 2014

POSTER PRESENTATIONS

55. *Scattering of In-Plane Waves by Elastic Wedges*, K. Mohammadi*, D. Asimaki and L. Fradkin, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 13-18 December, 2014
56. *Site response validation studies using KIK-net strong motion recordings*, D. Asimaki, Shi J.*, Southern California Earthquake Center (SCEC) Annual Meeting 2014, Palm Springs, CA, September 2014
57. *Infinite Wedge Revisited: Scattering of Plane Waves by Wedge Topographic Features*, K. Mohammadi* and D. Asimaki, Annual Meeting Seismological Society of America, Anchorage AK, 29-31 May, 2014
58. *Nonlinear site response: Validation exercises on site-specific and regional scales*, D. Asimaki, Shi J.*, Taborda R. and Yong A., Southern California Earthquake Center (SCEC) Annual Meeting 2013, Palm Springs, CA, September 2013
59. *Nonlinear site amplification factors at SC stations for broadband ground motion simulations*, D. Asimaki, Shi J.*, Li W.* and Yong A., Southern California Earthquake Center (SCEC) Annual Meeting 2012, Palm Springs, CA, September 2012
60. *Topographic Amplification of Seismic Motion: Observations and Simulations in 3D*, Joint NEES Quake Summit 2012 and NSF CMMI Engineering Research and Innovation Conference, Boston MA, July 9-12, 2012
61. *Ground motion amplification at Hotel Montana during the M7.0 2010 Haiti Earthquake: Topography Effects?* D. Asimaki and Jeong S.*, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 5-9 December 2011

62. *Ground motion amplification during the M7.0 Haiti Earthquake: Topography or Soil Effects?* D. Asimaki and Jeong S.*, Southern California Earthquake Center (SCEC) Annual Meeting 2011, Palm Springs, CA, September 2011
63. *Integrating nonlinear site response models in broadband ground motion predictions*, Asimaki D. and W. Li*, Southern California Earthquake Center (SCEC) Annual Meeting 2011, Palm Springs, CA, September 2011
64. *Site effects in nonlinear structural performance predictions*, D. Asimaki and W Li*, Southern California Earthquake Center (SCEC) Annual Meeting 2009, Palm Springs, CA, September 2009
65. *Systematic analysis of temporal changes in site response associated with strong ground motion in Japan*, C. Wu, Z. Peng, and D. Asimaki, Southern California Earthquake Center (SCEC) Annual Meeting 2009, Palm Springs, CA, September 2009
66. *A wavelet-based inversion for in-situ characterization of nonlinear soil behavior*, Kalos A* and Asimaki D., NEES 7th Annual Meeting 2009 Seismic Mitigation in a Flat World, June 23-25, Honolulu, Hawaii
67. *Nonlinear dynamic macroelements for performance-based optimization of liquefaction mitigation strategies*, Varun V* and Asimaki D., NEES 7th Annual Meeting 2009 Seismic Mitigation in a Flat World, June 23-25, Honolulu, Hawaii
68. *Rupture-to-rafters synthetic ground motions and the role of nonlinear site response predictions*, Asimaki D. and Li W*, Southern California Earthquake Center (SCEC) Annual Meeting 2008, Palm Springs, CA, September 2008.
69. *Systematic analysis temporal changes of site response associated with strong ground motion in Japan*, Wu C., Peng Z. and Asimaki D., IRIS Meeting, June 2-5, Stevenson, Washington, 2008.
70. *Estimating nonlinear dynamic soil properties in-situ via full-waveform inversion: Parameterization and synthetic seismogram implementation*, Asimaki D. and Kalos A*, Sixth NEES Annual Meeting, Portland, OR, 18-20 June 2008.
71. *Non-linear dynamic macroelements for performance-based optimization of liquefaction mitigation strategies: Soil-structure interaction analyses of waterfront structures*, Varun V* and Asimaki D, Sixth NEES Annual Meeting, Portland, OR, 18-20 June 2008.
72. *Modeling Nonlinear Site Response Uncertainty in Broadband Ground Motion Simulations for the Los Angeles Basin*, Li W* and Asimaki D, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 10-14 December 2007.
73. *Modeling uncertainty of nonlinear site response in the Los Angeles basin*, Li W* and Asimaki D, Southern California Earthquake Center (SCEC) Annual Meeting 2007, Palm Springs, CA, September 2007
74. *A Nonlinear Dynamic Macroelement for Soil-Structure Interaction Analyses of Pile Supported Wharves: From 3D FEM simulations to Practice*, Varun V* and Asimaki D., Fifth NEES Annual Meeting, Snowbird UTAH, 19-21 June 2007.
75. *Nonlinear site response simulation in broadband ground motion models*, Li W* and Asimaki D, Southern California Earthquake Center (SCEC) Annual Meeting 2006, Palm Springs, CA, September 2006.
76. *Site Amplification and Attenuation Assessment through Downhole Seismogram Inversion*, Asimaki D, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, 5-9 December 2005.
77. *Inverse Analysis of Weak and Strong Motion Data: Theory and Applications*, Asimaki D, Southern California Earthquake Center (SCEC) Annual Meeting 2005, Palm Springs, CA, September 2005.
78. *Using borehole vertical array data to determine local soil properties: A combined global local optimization algorithm for plane wave seismogram inversion*, Asimaki D, Southern California Earthquake Center (SCEC) Annual Meeting 2004, Palm Springs, CA, September 19-22, 2004

EARTHQUAKE RECONNAISSANCE REPORTS

79. Geo-Engineering Reconnaissance of the 2014 Cephalonia, Greece Earthquakes, *Report for Web Dissemination GEER Association Report No. GEER-034 in collaboration with EERI and ATC*, Reconnaissance Team (GEER): Sissy Nikolaou, Dimitrios Zekkos, **Dominic Asimaki**; Reconnaissance Team (EERI): Ramon Gilsanz, June 2014
80. Geo-Engineering Reconnaissance of the February 27, 2010 Maule, Chile Earthquake, *Report of the National Science Foundation-Sponsored Geoenvironmental Extreme Events*, Reconnaissance (GEER) Team: Jonathan Bray, David Frost, Ramon Verdugo, Christian Ledezma, Terry Eldridge, Pedro Arduino, Scott Ashford, **Dominic Asimaki**, Tara Hutchinson, Laurie Johnson, Keith Kelson, Robert Kayen, Gonzalo Montalva, Robb Moss, George Mylonakis, Scott Olson, Kyle Rollins, Nicholas Sitar, Jonathan Stewart, Alfredo Urzua, Rob Witter, and Nick Zoa, April 2010

81. The M 8.8 Maule, Chile Earthquake of February 27, 2010, *EERI Special Earthquake Report - Learning from Earthquakes*, EERI Newsletter, Pedro Arduino, Scott Ashford, **Dominic Asimaki**, Jonathan Bray, Terry Eldridge, David Frost, Tara Hutchinson, Laurie Johnson, Keith Kelson, Robert Kayen, Christian Ledezma, Gonzalo Montalva, Robb Moss, George Mylonakis, Scott Olson, Kyle Rollins, Nicholas Sitar, Jonathan Stewart, Alfredo Urzua, , Ramon Verdugo, Rob Witter, and Nick Zoa, June 2010.

3. TEACHING

A. INDIVIDUAL STUDENT GUIDANCE

POST DOCTORAL STUDENT GUIDANCE

Dr. Walter Yang

Project: Nonlinear Numerical Simulations of Soil-Structure Interaction for Pile-Supported Wharves

Dates: October 2007 June 2009

PhD STUDENT GUIDANCE

1. Varun Varun

Date of graduation: July 2010

Thesis Title: A Non-Linear Dynamic Macroelement for Soil-Structure Interaction Analyses in Liquefiable Sites

2. Wei Li

Date of graduation: July 2010

Thesis Title: A computational framework for the integration of nonlinear site response analyses in broadband ground motion simulations

3. Seokho Jeong

Date of graduation: February 2014

Thesis Title: Topographic Amplification of Seismic Motion including Nonlinear Response

4. Kami Mohammadi (Advisor)

Project: Three-dimensional (3D) topographic amplification of seismic ground motion

Dates: Fall 2010 - Spring 2015 (anticipated graduation date)

Sponsor: NSF CMMI Geotechnical Division (NSF); USGS Earthquake Effects

5. Jian Shi (Advisor)

Project: Nonlinear site amplification factors for broadband ground motion simulations

Dates: Fall 2011 - present

Sponsor: USGS Earthquake Physics; Southern California Earthquake Center (SCEC)

MS STUDENT GUIDANCE

1. Varun Varun

Date of graduation: December 2006

Thesis Title: A simplified model for the lateral response of caisson foundations

2. Alexandros Kalos

Date of graduation: Spring 2009

No-thesis degree option

3. Jian Shi

Date of graduation: Spring 2009

No-thesis degree option

4. Presaveed Prasad

Date of graduation: Spring 2009

No-thesis degree option

B. OTHER TEACHING ACTIVITIES**GRADUATE COURSES TAUGHT****Georgia Tech 2005-2014**

CEE6463: Constitutive Soil Modeling	Fall 2005
CEE8813C: Theoretical Geomechanics	Fall 2006, Fall 2008, Fall 2010, Spring 2012
CEE6445: Geotechnical Earthquake Engineering	Fall 2007, Fall 2009, Spring 2013
CEE6442: Soil Dynamics	Spring 2010
CEE8811A: Geotechnical Engineering Seminar	Spring 2008, Fall 2008
CEE8813B: Critical State Soil Mechanics	Fall 2012

California Institute of Technology 2014-present

AM151b: Dynamics and Vibrations	Winter 2015
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UNDERGRADUATE COURSES TAUGHT**Georgia Tech 2005-2014**

CEE2040: Rigid Body Dynamics	Annually Spring 2006 - Spring 2013
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California Institute of Technology 2014-present**TEACHING ASSISTANTSHIPS**

1.581 Advanced Structural Dynamics Department of Civil and Environmental Engineering, MIT	Fall 1999, Fall 2002, Fall 2003 Cambridge, MA
1.031 Geotechnical Engineering Design Department of Civil and Environmental Engineering, MIT	Spring 2000 Cambridge, MA

TEACHING EXPERTISE**Graduate Courses**

- Geotechnical Engineering
- Soil Mechanics
- Geotechnical Earthquake Engineering
- Structural Dynamics and Vibrations
- Wave Propagation

Undergraduate Courses

- Geomaterials and Geomechanics
- Mechanics of Structures and Soils
- Engineering Mechanics
- Structural Dynamics and Vibrations

SERVICE**PROFESSIONAL CONTRIBUTIONS****Technical Journal Editorial Board**

- Associate Editor, ASCE Journal of Computing in Civil Engineering (2010-date)
- Editorial Board Member, EERI Earthquake Spectra (2013-date)
- Associate Editor, Soils and Foundations (2014-date)
- Associate Editor, ASCE Journal of Geotechnical and Geoenvironmental Engineering (2015-date)

Organization/Chairmanship of technical sessions and workshops

- Technical Program Committee, SSA 2015 Annual Meeting of the Seismological Society of America, 21-23 April 2015, Pasadena, California
- Special Session Organizer, *Capturing Site Effects in Strong Ground Motion*, Annual Meeting of the Seismological Society of America, 21-23 April 2015, Pasadena, California
- Mini-symposium Organizer, *Three-dimensional site effects in strong ground motion*, 6th International Conference in Earthquake Geotechnical Engineering, 14-16 November, 2015, Christchurch, New Zealand
- Special Session Organizer, *Site response: From site-specific analyses to predictive models around the globe*, Annual Meeting of the Seismological Society of America, 30 April-May 1 2014, Alaska, AK
- Special Session Co-chair, *Computing for Geo-Modeling and Geomechanics*, 2013 ASCE International Workshop on Computing in Civil Engineering, University of Southern California, Los Angeles CA, June 23-25, 2013
- Scientific Committee, 2012 Joint Conference of the Engineering Mechanics Institute (EMI) and 11th ASCE Joint Specialty Conference on Probabilistic Mechanics and Structural Reliability (PMC), University of Notre Dame June 17-20, 2012.
- International Scientific Committee, EUROODYN2011, 8th International Conference on Structural Dynamics, 4-6 July 2011, Leuven, Belgium
- Technical Program Committee, SSA 2011 Annual Meeting of the Seismological Society of America, 13-15 April 2011, Memphis, Tennessee
- Special Session Organizer, *Geotechnical Lessons learned from the 2010 events in Haiti, Chile, Baja CA and New Zealand*, Annual Meeting of the Seismological Society of America, 13-15 April 2011, Memphis, Tennessee
- Minisymposium Organizer and Session Chair, *Waves: Simulations and Applications*, Engineering Mechanics Conference (EMI 2010), Department of Civil Engineering, University of Southern California, August 8-11, 2010
- Outstanding Student Paper Award Competition Judge in Computational Mechanics, Engineering Mechanics Conference (EMI 2010), Department of Civil Engineering, University of Southern California, August 8-11, 2010
- Special Session Organizer, *Topography Effects in Ground Motion Predictions: From Numerical Modeling to Engineering Design*, American Geophysical Union (AGU) Fall Meeting, San Francisco CA, December 13-18, 2009
- Special Session Co-organizer, *Site Effects: Vs30 and beyond*, Annual Meeting of the Seismological Society of America, Monterey, CA April 8-10, 2009
- Session Chair, *Earthquake Strong Motions*, American Geophysical Union (AGU) 2008 Fall Meeting, San Francisco, CA, 15-19 December, 2008
- Outstanding Student Paper Award Competition Judge, Seismology Section, American Geophysical Union (AGU) 2008 Fall Meeting, San Francisco, CA, 15-19 December, 2008
- Minisymposium Co-organizer, *Advances in the analysis and simulation of waves*, Inaugural International Conference of the Engineering Mechanics Institute (EM08), Department of Civil Engineering, University of Minnesota, Minneapolis, Minnesota, May 18-21, 2008
- Minisymposium Chair, *Soil-foundation-structure interaction (SFSI) during dynamic events*, International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering COMPDYN 2007, Rethymno, Crete, Greece, June 14, 2007
- Organizing committee member, 2nd Greece-Japan Workshop on Seismic Design, Observation and Retrofit of Foundations, Tsukuba, JAPAN, April 3-4, 2007
- Session Chair, *Site response and Site Effects*, First European Conference on Earthquake Engineering and Seismology, Geneva, Switzerland, 3-8 September 2006
- ASCE Geo-Institute Planning Committee Member, GeoCongress 2006: Geotechnical Engineering in the Information Technology, Atlanta, GA, February 26 - March 1, 2006

Technical Committee Activities

- ASCE Geo-Institute, Soil Dynamics Committee Member, 2005 - present

Technical Journal Referee

- Journal of Sounds and Vibrations (Elsevier), since 2012
- Nature Geosciences, since 2010
- Bulletin of the Seismological Society of America, since 2005
- Canadian Geotechnical Journal, since 2005
- International Journal for Numerical and Analytical Methods in Geomechanics, since 2005
- Journal of Bridge Engineering (ASCE), since 2006
- Journal of Earthquake Engineering, since 2005
- Journal of Geotechnical and Geoenvironmental Engineering (ASCE), since 2005
- Pure and Applied Geophysics, since 2006
- Soil Dynamics and Earthquake Engineering, since 2004

Proposal Review Panels

- National Science Foundation, Engineering Directorate panel, Geoenvironmental Engineering and Geohazards Mitigation Program
- National Science Foundation, Division of Earth Sciences, Geophysics Program
- Atlantic Canada Opportunities Agency, Atlantic Innovations Fund (AIF) Program
- United States Geological Survey (USGS), Earthquake Effects NEHRP Program
- Agence Nationale de la Recherche ANR, Dpartement Energie Durable & Environnement (FRANCE)
- Qatar National Research Fund (QNRF): National Priorities Research Program (NPRP)

CAMPUS CONTRIBUTIONS**Institute and School Committees**

- Diversity Committee, EAS Division, Fall 2014 - date
- Upperclass Admissions Committee, Fall 2014 - date
- MCE Faculty Search Committee, EAS Division, Fall 2014 - date

GRANTS AND CONTRACTS

AS PRINCIPAL AND CO-PRINCIPAL INVESTIGATOR

- "Three-dimensional nonlinear site effects at U.S. strong motion stations", United States Geological Survey (USGS) NEHRP Earthquake Effects, **\$76,787** (04/01/14 to 03/31/15), Role: PI
- "An international meeting on research needs and priorities in the realm of offshore wind substructures", Strategic Energy Institute, Georgia Tech, **\$10,000**, (01/01/14 to 06/31/14), Role: PI
- "Validating nonlinear site response prediction methodologies for SCEC Broadband Ground Motion Simulations", National Science Foundation & United States Geological Survey (USGS): Southern California Earthquake Center (SCEC), **\$35,285** (02/01/13 to 01/31/14), Role: PI
- "Site-specific amplification factors at strong motion stations in Western US", United States Geological Survey (USGS) NEHRP Earthquake Effects, **\$63,098** (02/01/11 to 01/30/12), Role: PI
- "Topographic amplification of seismic motion: Observations and simulations in 3D", National Science Foundation, Division of CMMI Geotechnical Engineering, **\$365,325** (09/01/10 to 08/31/13), Role: PI
- "A nonlinear site response computer application for the SCEC Broadband Ground Motion Simulation Platform", National Science Foundation & United States Geological Survey (USGS): Southern California Earthquake Center (SCEC), **\$30,000** (02/01/10 to 01/31/11), Role: PI
- "Nonlinear site response uncertainty in rupture-to-rafter ground motion simulations", National Science Foundation & United States Geological Survey (USGS): Southern California Earthquake Center (SCEC), **\$30,000** (02/01/08 to 01/31/09), Role: PI
- "A cost-effective, efficient framework for the analysis of nonlinear site effects in the LA Basin", National Science Foundation & United States Geological Survey (USGS): Southern California Earthquake Center (SCEC), **\$30,000** (02/01/07 to 01/31/08), Role: PI

- "Including nonlinear site effects in broadband deterministic wavefield models", National Science Foundation & United States Geological Survey (USGS): Southern California Earthquake Center (SCEC), **\$36,088** (02/01/06 to 01/31/07), Role: PI
- "NEESR-SG: High-Fidelity Site Characterization by Experimentation, Field Observation and Inversion-Based Modeling", National Science Foundation: George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES), **\$161,086** (10/01/06 to 09/30/10), Role: co-PI

AS INVESTIGATOR

- "NEESR-GC: Seismic Risk Mitigation for Port Systems", National Science Foundation: George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES), **\$270,000** (10/01/06 to 9/30/10), PI: Dr. Glenn Rix, Georgia Institute of Technology
- "NEESR-CR: Topographic Effects in Strong Ground Motion - From Physical and Numerical Modeling to Design", National Science Foundation: George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES), **\$206,662** (09/01/09 to 08/31/12), PI: Dr. Adrian Rodriguez-Marek, Virginia Tech, Blacksburg VA