

**MARIOS PANAGIOTOU**  
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**EDUCATION**

University of California, San Diego, California  
Ph.D. in Structural Engineering, 2008  
Dissertation Title: Seismic Design, Testing and Analysis of Reinforced Concrete Wall Buildings  
(Advisor: Professor J.I. Restrepo)

University of California, San Diego, California  
M.S. in Structural Engineering, UCSD, 2005

National Technical University of Athens, Athens, Greece  
Diploma in Civil Engineering, 2003  
Diploma Thesis Title: Seismic Soil-Structure Interaction of Wind Turbine Steel Towers  
(Advisors: Professor G. Gazetas and Professor C. Gantes)

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**AWARDS**

- 2012 Alfred Noble Prize (ASCE, ASME, AIM, IEEE)
- NEESINC Awards: “15 Seconds of Fame UCSD/PCA/NEESinc Blind Prediction Competition Group.” 4<sup>th</sup> NEES Annual Meeting, Washington, USA, June, 2006.

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**ACADEMIC EXPERIENCE**

Assistant Professor, Department of Civil and Environmental Engineering, University of California, Berkeley, July 2008 – present.

## **COURSES TAUGHT AT UCB**

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- CE 120 – “Structural Engineering” (Undergraduate course)
- CE 123 – “Design of Reinforced Concrete Structures” (Undergraduate course)
- CE 223 – “Earthquake Protective Systems” (Graduate course)
- CE 245 – “Behavior of Reinforced Concrete” (Graduate course)

## **RESEARCH INTERESTS**

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- Structural Earthquake Engineering
- Analytical and Experimental Development of Earthquake Damage Resistant Structures Using Isolation Devices, Rocking Components, and High-performance Materials
- Performance-based Seismic Design of Structures
- Computational Seismic Analysis of Reinforced Concrete Structures
- Engineering Characterization of Earthquake Ground Motions
- Seismic Soil-Foundation-Superstructure Interaction

## **PH.D. RESEARCH SUPERVISION (PHD)**

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1. **Dr. V. Calugaru**, Fall 2013, “Earthquake Resilient Tall Reinforced Concrete Buildings at Near-Fault Sites Using Base Isolation and Rocking Core Walls.”
2. **Dr. W. Trono**, Spring 2014, “Earthquake Resilient Bridge Columns Utilizing Damage Resistant Hybrid Fiber Reinforced Concrete,” (co-advised with Professor C. Ostertag)
3. **Dr. T. Visnjic**, Fall 2014, “Design Considerations for Earthquake-Resistant Special Moment Frames,” co-advised with Professor J. Moehle.
4. **Mr. G. Antonellis**, “Analytical and Experimental Development of Bridges with Rocking Foundations Designed to Uplift under Seismic Loading,” **Expected Ph.D. completion: December 2014.**
5. **Ms. Y. Lu**, “Three-dimensional Seismic Analysis of Reinforced Concrete Wall Buildings at Near-fault Sites,” **Expected Ph.D. completion date: December 2014.**

## **ACADEMIC SERVICE AT UCB**

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Member, CEE Department Outreach Committee; Member, CEE Department Curriculum Committee; Reviewer of Junior Transfer Applications; Advisor of CEE Steel Bridge Team; Undergraduate Student Advisor

## PROFESSIONAL SERVICE

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**Membership in Professional Societies and Technical Committees:** American Society of Civil Engineers, American Concrete Institute, Earthquake Engineering Research Institute. Associate member of the American Concrete Institute (ACI) ACI Committee 341; ACI Committee 374; ACI Committee 447.

**Professional Reviews:** ASCE Journal of Structural Engineering (7), ASCE Journal of Bridge Engineering (8), Earthquake Engineering & Structural Dynamics (4), Journal of Earthquake Engineering (3), Earthquake Spectra (3), Engineering Structures (2), Computers and Concrete (1), Journal of Advanced Concrete Technology (1).

**Funding Agency Service:** Proposal panel reviewer for NSF's CMMI Division (April 2010). External evaluator for the Greek research program "Aristeia", as well as for the co-funded by the European Commission programs: 'Archimedes III', 'Thalis'.

**Invited Presentations** to Technical Committees, Organizations, University Seminars, Nationals and International Workshops, and Consulting firms, are listed in the end of this CV.

## PROPOSALS TO NATIONAL SCIENCE FOUNDATION RECOMMENDED FOR FUNDING

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Proposal Number 1208201 (NEESR: Earthquake Resilient Tall Buildings Using Isolation and Re-centering Walls, budget: \$998,740, PI: Panagiotou M., Program solicitation: NSF 11-566) submitted to the NSF and was **highly recommended for funding** by a panel of six reviewers.

## RESEARCH GRANTS (RG)

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9. "Seismic Demand Model of Bridge Piers Supported on Rocking Shallow Foundations," Pacific Earthquake Engineering Research Center (PEER), 09/15/2013 – 06/30/2014, \$55,466, PI: M. Panagiotou

8. "Experimental Response and Analytical Modeling of Rocking Foundations under Seismic Loading," California Department of Transportation (CALTRANS), 02/01/2013 to 07/31/2015, \$741,479, Principal Investigator (PI): Panagiotou, M., co-PIs: Kutter B. (UCD), Fox P., and Restrepo, J.I. (UCSD), Mahin A. S. (UCB). Videos of the test response:

<http://www.youtube.com/watch?v=LO9ffdJ258A&feature=youtu.be>.

7. "Shaking table test of pre-cast post-tensioned HyFRC bridge column," Pacific Earthquake Engineering Research Center (PEER), 10/01/2012 – 09/30/2013, \$64,414, PI: C. Ostertag, co-PI: M. Panagiotou. Video of test response: <http://www.youtube.com/watch?v=Hqft2d8JMKc>

6. "High Performance Modeling of Seismic Soil-Foundation-Structure Interaction in Tall Buildings," France-Berkeley Fund, 06/2010 to 07/31/2013, \$10,000, co-PIs: Panagiotou M., Grange S.

5. "Beam Hoop Reinforcement for Large SMRF Beams," Pankow Foundation, Webcor Builders, ACI Foundation's Concrete Research Council, 08/01/10 – 10/31/11, \$108,445, PI: Moehle J.P, co-PI: Panagiotou M. Video of test response:

<http://www.youtube.com/watch?v=JHI6TsbJTh0&feature=youtu.be>

4. Seismic Response of Reinforced Concrete Buildings with Self-Centering Walls, UC-MEXUS 08/01/09 – 01/31/11, \$25,000, PI: Panagiotou M., co-PI: Rodriguez M.

3. Self-Compacted Hybrid Fiber Reinforced Concrete Composites for Bridge Columns, Pacific Earthquake Engineering Research Center (PEER), 01/01/09 – 12/31/10, \$138,771, PI: Ostertag C.P., co-PI: Panagiotou M.

2. California Institute of Energy Efficiency – California Energy Commission (CIEE-CEC), Analysis of the Seismic Performance of Substation, Post Insulators, 10/01/08 – 09/30/11, \$349,997, Co-PI.

1. Performance-based Evaluation of the Seismic Response of Bridges with Foundation Uplift, Pacific Earthquake Engineering Research Center (PEER), 09/01/09 – 08/31/10, \$69420, PI.

### **SNAPSHOTS FROM RESEARCH (links to videos and animations)**

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#### **1. Seismic analysis of RC walls and RC wall buildings**

<https://www.youtube.com/watch?v=r14GDOB9tgY&feature=youtu.be>

<https://www.youtube.com/watch?v=hxSx7AHQYuE>

<https://www.youtube.com/watch?v=14NIgs72fuM&feature=youtu.be>

<https://www.youtube.com/watch?v=9O9Mev62Ilw>

#### **2. Earthquake Damage-resistant Tall Buildings Using Base Isolation and Rocking Core Walls**

<https://www.youtube.com/watch?v=FBj-mNos8gU&feature=youtu.be>

<https://www.youtube.com/watch?v=DmEwyWwcrP4>

#### **3. Seismic Design, Analysis and Testing of Bridges with Rocking Foundations**

<https://www.youtube.com/watch?v=LO9ffdJ258A&feature=youtu.be>

<https://www.youtube.com/watch?v=52OI8Q1YIYM&feature=youtu.be>

#### **4. Shake Table Response of a Damage-resistant Post-Tensioned HyFRC Bridge Column**

<https://www.youtube.com/watch?v=Hqft2d8JMKc>

#### **5. Experimental Seismic Response of Full-scale RC Beams for Special Moment Frames**

<https://www.youtube.com/watch?v=JHI6TsbJTh0&feature=youtu.be>

#### **6. Shake Table Response of a Full-scale 7-Story RC Wall Building Slice**

<https://www.youtube.com/watch?v=PDdBPfEZ0Zw>

<https://www.youtube.com/watch?v=vAKJ6UYTbH8>

## PUBLICATIONS

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### Journal Manuscripts in Review / Preparation (JM)

4. Lu Y. and Panagiotou M. "Three Dimensional Seismic Analysis of Reinforced Concrete Wall Buildings," **in preparation**.

3. Calugaru V. and Panagiotou M. "Earthquake Damage Protection of Tall Buildings Near Large Faults Using Base Isolation and Rocking Core Walls," **in preparation**.

2. Antonellis G., Gavras A., Panagiotou M., Kutter B., Guerrini G., Sander A., Fox P., " Shake Table Test of Bridge Columns Supported on Rocking Shallow Foundations," **in review**, *ASCE Journal of Geotechnical and Geoenvironmental Engineering*. . **Review status:** First review received on 10/06/2014 (**minor revision required**). Revised manuscript in preparation.

1. Visnjic, T., Antonellis G., Panagiotou, M., and Moehle, J. P., "Experimental Cyclic Response of Large Reinforced Concrete Special Moment Frame Beams," **in review**, *ACI Structural Journal*. **Review status:** First review received in 06/2014 (revision required). Revised manuscript in preparation.

### Journal Publications (JP)

Journal publication description	Citations Google Scholar
15. Moharrami M., Koutromanos I., Panagiotou M., and Girgin S. C. "Analysis of Shear-Dominated RC Columns Using the Nonlinear Truss Analogy," <i>Earthquake Engineering &amp; Structural Dynamics</i> , accepted on 08/20/2014.	NA
14. Trono W., Jen, G. Panagiotou, M., Schoettler M., and Ostertag, C. P., and "Seismic Response of a Damage-resistant Recentering Post-tensioned HyFRC Bridge Column," <i>ASCE Journal of Bridge Engineering</i> , accepted on 08/15/2014.	NA
13. Panagiotou, M., Trono W., Jen G., Kumar P., and Ostertag, C.P., "Experimental Response of HyFRC Bridge Columns with Novel Longitudinal Reinforcement Detailing," <i>ASCE Journal of Bridge Engineering</i> , accepted on 07/21/2014.	1
12. Antonellis, G., and Panagiotou, M. (2014). "Seismic Response of Bridges with Rocking Foundations Compared to that of Fixed-base Bridges at a Near-Fault Site," <i>Journal of Bridge Engineering (ASCE)</i> , Vol 19, Issue 5.	2
11. Lu, Y., and Panagiotou, M. (2014). "Characterization and Representation of Near-fault Ground Motions Using Cumulative Pulse Extraction with Wavelet Analysis," <i>Bulletin of the Seismological Society of America</i> , 104:410-426.	1
10. Calugaru, V., and Panagiotou, M. (2014) "Seismic Response of 20-story Base-isolated and Fixed-base RC Structural Wall Buildings at a Near-fault Site," <i>Earthquake Engineering and Structural Dynamics</i> , Vol. 43, Issue 6, pp. 927-948.	1
9. Visnjic, T., Panagiotou, M., and Moehle J.P. "Seismic Response of 20-Story Reinforced Concrete Special Moment Resisting Frame Buildings Designed with Current Code Provisions,"	NA

<i>Earthquake Spectra</i> , published online September 6, 2013.	
8. Lu, Y., and Panagiotou, M. (2014). “Three-Dimensional Nonlinear Cyclic Beam-Truss Model for Reinforced Concrete Non-Planar Walls,” <i>ASCE Journal of Struct.Eng.</i> , Vol. 140, No. 3.	3
7. Calugaru, V., and Panagiotou, M. (2012). “Response of Tall Cantilever Wall Buildings Subjected to Strong Pulse -Type Ground Motion,” <i>Earthquake Engineering and Structural Dynamics</i> , Vol. 41, pp. 1301-1318.	8
6. Panagiotou, M., Restrepo, J.I., Schoettler, M., and Geonwoo, K. (2012). “Nonlinear Truss Model for Reinforced Concrete Walls,” <i>ACI Structural Journal</i> , Vol. 109, No. 2, pp. 205-214.	6
5. Moaveni, B., He, X., Conte, J.P., Restrepo, J.I., and Panagiotou M. (2011). “System Identification Study of a Seven-Story Full-Scale Building Slice Tested on the UCSD-NEES Shake Table“, <i>ASCE Journal of Structural Engineering</i> , Vol. 137, No. 6.	28
4. Panagiotou, M., Restrepo, J.I. (2011). “A Displacement-Based Method of Analysis for Regular Reinforced Concrete Wall Buildings: Application to a Full-Scale 7-Story Building Slice Tested at UC San Diego.” <i>ASCE Journal of Structural Engineering</i> , Vol. 137, No. 6. ( <b><u>2012 Alfred Noble Prize</u></b> )	10
3. Panagiotou, M., Restrepo, J.I., and Conte J.P. (2011). “Shake Table Test of a 7-Story Full Scale Reinforced Concrete Wall Building Slice, Phase I: Rectangular Wall.” <i>ASCE Journal of Struct. Engineering</i> , Vol. 137, No. 6.	29
2. Panagiotou, M., and Restrepo, J.I. (2009). “Dual-Plastic Hinge Design Concept for Reducing Higher-Mode Effects on High-Rise Cantilever Wall Buildings.” <i>Earthquake Engineering and Structural Dynamics</i> , Volume 38, Issue 12, pp. 1359-1380.	24
1. Hoehler, M.S., Panagiotou, M., Restrepo, J.I., Silva, J.F, Floriani, L., Bourgund, U., and Gassner, H. (2009). “Performance of Anchored Pipes in a 7 Story Building During Full-Scale Shake Table Tests.” <i>Earthquake Spectra</i> , Vol 25, Issue 1, pp. 71-91.	5

### Magazine Publications

1. Veletzos M.J., Panagiotou M., Van Den Einde, L., Restrepo, J.I., and Sahs, S. "On-Site Post Seismic Inspection and Capacity Assessment of Reinforced Concrete Bridge Columns." *Concrete International*, March 2008.

### Conference Papers (CP)

27. Antonellis G., Gavras G., Panagiotou M., Kutter B., Sander A., Guerrini G., Fox P. (2014). “Shake Table Test Response of Large Scale Bridge Columns Supported on Rocking Shallow Foundations,” 10<sup>th</sup> National Conference on Earthquake Engineering (10NCEE), Anchorage, Alaska.

26. Lu Y. and Panagiotou M. (2014). “Characterization and Representation of Strong Near-Fault Ground Motions Using Wavelet-Based Cumulative Pulse Extraction,” 10<sup>th</sup> National Conference on Earthquake Engineering (10NCEE), Anchorage, Alaska.

25. Lu. Y., and Panagiotou M. (2014). “Earthquake Damage Resistant Multistory Buildings Using

Combination of Base Isolation and Rocking Core Walls,” 1<sup>st</sup> Huixian International Forum on Earthquake Engineering, Harbin, China, August 16-19.

24. Girgin S., Lu Y., Panagiotou M. (2013). “Nonlinear Cyclic Truss Model for Shear-Critical Reinforced Concrete Columns,” 2nd Turkish Conference on Earthquake Engineering and Seismology – TDMSK -2013 September 25-27, 2013, Antakya, Hatay/Turkey

23. Visnjic T., Panagiotou M., Moehle J.P., Antonellis G. (2013). “Experimental Investigation of Large Reinforced Concrete Special Moment Resisting Frame Beams,” 10<sup>th</sup> International Conference on Urban Earthquake Engineering, Tokyo Japan (**Best Presentation Award for Young Researchers - Ms. T. Visnjic – in the Area of Structural Engineering-Concrete**).

22. Trono W., Jen G., Ostertag C., Panagiotou M. (2013). “Seismic Response of a Rocking, Post-Tensioned HyFRC Bridge Column,” 10<sup>th</sup> International Conference on Urban Earthquake Engineering, Tokyo Japan.

21. Lu Y., Panagiotou M. (2013). “Three-Dimensional Nonlinear Beam-Truss Model for Non-Planar Reinforced Concrete Walls,” 10<sup>th</sup> International Conference on Urban Earthquake Engineering, Tokyo Japan.

20. Visnjic T., Panagiotou M., Moehle J.P. (2012). “Seismic Response of Two 20-Story Reinforced Concrete Special Moment Frames Designed with Current Code Provisions,” 15<sup>th</sup> World Conference on Earthquake Engineering, Lisbon, Portugal.

19. Trono W., Jen G., Ostertag C., Panagiotou M. (2013). “Tested and Modeled Seismic Response of a Rocking, Post-tensioned HyFRC Bridge Column,” 7<sup>th</sup> National Seismic Conference on Bridges and Highways, Oakland, California.

18. Calugaru, V., and Panagiotou, M. (2011). “Earthquake-Resistant Tall Reinforced Concrete Buildings Using Seismic Isolation and Rocking Core-Walls” The 4<sup>th</sup> Japan – Greece Workshop, Seismic Design, of Foundations, Innovations in Seismic Design, and Protection of Cultural Heritage, Kobe, Japan, October 6-7, 2011.

17. Calugaru, V., and Panagiotou, M. (2011). “Seismic Isolation of Tall Cantilever Wall Buildings Using One or More Isolation Planes” 8th International Conference on Urban Earthquake Engineering, March 7-8, 2011, Tokyo Institute of Technology, Tokyo, Japan.

16. Calugaru, V., and Panagiotou, M. (2010). “Seismic Isolation Using Single and Dual Shear Hinging of Tall Cantilever Wall Buildings Subjected to Near Fault Ground Motions.” 9<sup>th</sup> US National and 10<sup>th</sup> Canadian Conference on Earthquake Engineering, Toronto, July 25-29.

15. Panagiotou, M., Calugaru, V., and Visnjic, T. (2009). “Higher Mode Effects on the Seismic Response of Tall Cantilever Wall Buildings Subjected to Near Fault Ground Motions.” 78<sup>th</sup> SEAOC Annual Convention, September 23-26, San Diego, CA.

14. Barbosa, A.R., Panagiotou, M., Conte, J.P., and Restrepo, J.I. “Comparison of Dynamic Strut-and-Tie and Fiber Beam-Column Models for the UCSD Seven-Story Full-scale Building Slice Test.” in Proceedings of the Sixth International Conference on Urban Earthquake Engineering, Tokyo, Japan, March 2009.

13. Moaveni, B., Barbosa, A.R., Panagiotou, M., Conte, J.P., Restrepo, J.I. “Uncertainty Analysis of Identified Damping Ratios in Nonlinear Dynamic Systems.” In Proceedings of the 27th International Modal Analysis Conference (IMAC-XXVII), Orlando, Florida, USA, February 2009. Society for Experimental Mechanics.

12. Panagiotou, M., and Restrepo, J.I., “Lessons Learnt from the UCSD Full-scale Shake Table Testing on a 7-Story Residential Building Slice.” SEAOC convention, Lake Tahoe, September 26-29, 2007.

11. Panagiotou, M., and Restrepo, J.I., “A modification of the equivalent lateral force procedure for use in performance based seismic design of high rise buildings”. 12th U.S.-Japan Workshop on Structural design and Construction Practices, September 10 - 12, Hawaii, 2007.
10. Hoehler, M.S., Silva, J.F., Floriani, L., Bourgund, U., Gassner, H., Restrepo, J.I., Panagiotou, M., “Full-scale shake table test of pipes anchored in a 7-story RC building.” FIP Symposium on "Connections between Steel and Concrete." Stuttgart, Germany, September 2007.
9. Panagiotou, M., Restrepo, J.I., “Model Calibration for the UCSD 7-Story Building Slice.” NEES/UCSD Seminar on Analytical Modeling of Reinforced Concrete Walls for Earthquake Resistance, La Jolla, California, USA, December, 2006.
8. Panagiotou, M., Restrepo, J.I., Conte, J.P., and Englekirk, R.E., “Shake Table Response of a Full Scale Reinforced Concrete Wall Building Slice.” Structural Engineering Association of California Convention, Long Beach, CA, USA, September, 2006.
7. Panagiotou, M., Restrepo, J.I., and Englekirk, R.E., “Experimental Seismic Response of a Full Scale Reinforced Concrete Wall Building.” First European Conference on Earthquake Engineering and Seismology, Geneva, Switzerland, 3-8 September, 2006.
6. Yang, F., Panagiotou, M., Bock, Y., Conte, J.P., and Restrepo, J.I., “Shake Table Tests of a Full Scale Reinforced Concrete Wall Building: Integration of Real Time 50 Hz GPS Displacements and Accelerometer Data.” 4th World Conference on Structural Control and Monitoring, San Diego, California, USA, July, 2006.
5. Panagiotou, M., Restrepo, J.I., and Englekirk, R.E., “Seismic Response of Reinforced Concrete Wall Buildings.” 2nd International fib Congress, Naples, Italy, June, 2006.
4. Panagiotou, M., Restrepo, J.I., Conte, J.P., and Englekirk, R.E., “Seismic Response of Reinforced Concrete Wall Buildings.” 8th National Conference of Earthquake Engineering, San Francisco, CA, USA, April, 2006.
3. Psarropoulos, P., Panagiotou, M., Gantes, C.J., Gazetas, G., “Dynamic Interaction between Soil and Wind Turbines.” 5th National Conference of Geotechnical and Geoenvironmental Mechanics, Ksanthi, Greece, May, 2006.
2. Panagiotou, M., Psarropoulos, P., Gantes, C.J., Gazetas, G., “The role of Dynamic Soil-Foundation-Structure Interaction in the Design of Wind Turbine Towers.” 5th National Conference of Steel Structures, Ksanthi, Greece, September, 2005.
1. Gantes, C.J., Panagiotou, M., and Fragopoulos, T. “Influence of Initial Imperfections for the Design of Buckling-Prone Structures.” ICES’03: International Conference on Computational & Experimental Engineering and Sciences, Corfu, Greece, July, 2003.

## Technical Reports

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22. Co-author of Chapter 1 (Strong Motion Records) of the report: “PEER Preliminary Notes and Observations on the August 24, 2014, South Napa Earthquake,” Editors: G. S. Kang and S. A. Mahin, Pacific Earthquake Engineering Research Center, Report No. 2014/13.
21. Lu Y. and Panagiotou M. (2013). “Nonlinear Seismic Site Response and Soil Foundation Structure Interaction of a 20-story Structural Wall Building Subjected to Pulse-like Excitation.” Report No. UCB/SEMM-2013/08, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA. <http://nisee.berkeley.edu/documents/SEMM/SEMM-2013-08.pdf>
20. Panagiotou M., Visnjic T., Antonellis G., Galanis P., Moehle J.P. (2013). “Effect of Hoop



Reinforcement Spacing on the Cyclic Response of Large Reinforced Concrete Special Moment Frame Beams,” Pacific Earthquake Engineering Research Center, PEER report 2013/16. [http://peer.berkeley.edu/publications/peer\\_reports/reports\\_2013/webPEER-2013-16-Panagiotou-Visnjic-Antonellis-Galanis-Moehle.pdf](http://peer.berkeley.edu/publications/peer_reports/reports_2013/webPEER-2013-16-Panagiotou-Visnjic-Antonellis-Galanis-Moehle.pdf)

19. Antonellis, G., and Panagiotou, M. (2013). “Seismic Design and Performance of Bridges with Columns Supported on Rocking Foundations,” Pacific Earthquake Engineering Research Center, PEER report 2013/21. [http://peer.berkeley.edu/publications/peer\\_reports/reports\\_2013/webPEER-2013-21-Panagiotou.pdf](http://peer.berkeley.edu/publications/peer_reports/reports_2013/webPEER-2013-21-Panagiotou.pdf)

18. Antonellis, G., and Panagiotou, M. (2013). "Seismic Responses of Bridges with Rocking Foundations at a Near-Fault Site," UCB/SEMM-2013/04, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA.

17. Zimmerman R. B., Panagiotou M., and Mahin S. (2013). “Numerical modeling and seismic retrofit for shear failure in reinforced concrete columns Report No. UCB/SEMM-2013/03, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA.

16. Trono W., Jen, G. Ostertag, C. P., and Panagiotou, M. (2013). "Shake-table Test Response of a Rocking Post-tensioned HyFRC Bridge Column," Report No. UCB/SEMM-2013/02, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA. <http://nisee.berkeley.edu/elibrary/Text/201302052>

15. Lu, Y., and Panagiotou, M. (2013). “Characterization and Representation of Pulse-like Ground Motions Using Cumulative Pulse Extraction via Wavelet Analysis,” Report No. UCB/SEMM-2013/01, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA. <http://nisee.berkeley.edu/elibrary/Text/201302051>

14. Calugaru, V., and Panagiotou, M. (2012). “Seismic Response of 20-story Base-isolated and Fixed-base RC structural wall buildings subjected to near-fault ground shaking,” Report No. UCB/SEMM-2012/03, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA. <http://nisee.berkeley.edu/elibrary/Text/201212041>

13. Visnjic, T., Panagiotou, M., and Moehle J.P. (2012). “Seismic Response of four 20-Story Reinforced Concrete Special Moment Resisting Frames Designed with Current Code Provisions,” Report No. UCB/SEMM-2012/02, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA. <http://nisee.berkeley.edu/elibrary/Text/201209141>

12. Lu, Y., and Panagiotou, M. (2012). “Three-Dimensional Cyclic Beam-Truss Model for Non-Planar Reinforced Concrete Walls,” Report No. UCB/SEMM-2012/01, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA.

11. Calugaru, V., and Panagiotou, M. (2011). “Earthquake-resistant and Resilient Tall Reinforced Concrete Buildings Using Base Isolation and Rocking Core-walls,” Report No. UCB/SEMM-2011/09, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, USA. <http://nisee.berkeley.edu/elibrary/Text/201112193>

10. Calugaru, V., and Panagiotou, M. “Response of Tall Cantilever Wall Buildings to Strong Pulse – Type Seismic Excitation” Report No. UCB/SEMM-2011/05, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, 2011.

9. Panagiotou, M., Restrepo, J. I., “Nonlinear Cyclic Truss Model for Strength Degrading Plane Stress Reinforced Concrete Elements,” Report No. UCB/SEMM-2011/01, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, 2011.

8. Kumar, P., Jen, G., Trono, W., Lallemand, D., Panagiotou, M., Ostertag, C.P., "Self Compacting Hybrid Fiber Reinforced Concrete Composites for Bridge Columns” Pacific Earthquake Engineering

Research Center, PEER report 2011/106, September 2011.

7. Panagiotou, M., Genwo, K., Barbosa, A.R., and Restrepo, J.I., "Response Verification of a Reinforced Concrete Bearing Wall Building Located in an Area of High Seismic Hazard." Portland Cement Association Research and Development, Serial No. SN2961, Illinois, 2009.

6. Panagiotou, M., Genwo, K., Barbosa, A.R., and Restrepo, J.I., "Response Verification of a Reinforced Concrete Bearing Wall Building Located in an Area of High Seismic Hazard." SSRP Report 2008/05. UCSD - Department of Structural Engineering, La Jolla, California, 2008.

5. Panagiotou, M., Geonwoo, K., Barbosa, A., Restrepo, J.I., "Response Verification of a Reinforced Concrete Bearing Wall Building Located in an Area of High Seismic Hazard." Report to PCA, September, 2007.

4. Panagiotou, M., Restrepo, J.I., and Conte, J.P., "Shake table test of a 7-story full scale reinforced concrete structural wall building slice – Phase II: T-wall section." Report No SSRP-07/08, University of California, San Diego, 2007.

3. Panagiotou, M., Restrepo, J.I. and Conte, J.P., "Shake table test of a 7-story full scale reinforced concrete structural wall building slice – Phase I: Rectangular wall." Report No SSRP-07/07, University of California, San Diego, 2007.

2. Veletzos, M.J., Panagiotou, M., and Restrepo, J.I., "Post Seismic Inspection and Capacity Assessment of Reinforced Concrete Bridges." University of California San Diego, Structural Systems Research Project, La Jolla, CA, July, 2006.

1. Restrepo, J.I., Panagiotou, M., "Bart Aerial Guideway Shear Key Tests." University of California San Diego, Department of Structural Engineering, La Jolla, CA, October, 2005.

### **Editor of Workshop Proceedings**

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1. "NEES/UCSD workshop and seminar on analytical modeling of reinforced concrete walls for earthquake resistance," Restrepo J. I., Panagiotou M. (2006). UC San Diego, California, USA, December 15-16.

### **POSTERS**

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1. Bock, Y., Panagiotou, M., Yang, F., Restrepo J.I. and Conte, J.P., "Shake Table Tests of a Full Scale Reinforced Concrete Wall Building: Real Time 50 Hz GPS Displacement Measurements." 8NCEE: 8<sup>th</sup> National Conference of Earthquake Engineering, San Francisco, CA, USA, April 2006.

### **INVITED PRESENTATIONS**

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35. "Characterization and Representation of Near-fault Pulse-like Ground Motions and their Effect on Nonlinear Structural Response: Implications for Damage-Resistant Design of Structures in Cephalonia," International Workshop on Seismic Hazard and Earthquake Engineering, September 24-25, 2014, Cephalonia, Greece.

34. "Earthquake Damage Resistant Multistory Buildings Using Combination of Base Isolation and Rocking Core Walls," 1<sup>st</sup> Huixian International Forum on Earthquake Engineering, Harbin, China, August 16-19, 2014.

33. "Earthquake Resilient Design of Reinforced Concrete Tall Buildings and Highway Bridges at Near Fault Regions," Macau University, Macau, China, March 28<sup>th</sup>, 2014.
32. "Seismic Analysis Design and Retrofitting of Multistory Buildings at Near Fault Regions," Hong Kong Architecture Services Department, Hong Kong, China, March 27<sup>th</sup>, 2014.
31. "Three-dimensional Seismic Analysis of Tall Reinforced Concrete Wall Buildings at Near Fault Regions and Seismic Design Implications," Hong Kong Institute of Steel Construction, Hong Kong, China, March 26<sup>th</sup>, 2014.
30. "Earthquake Resilient Design of Reinforced Concrete Tall Buildings and Highway Bridges at Near Fault Regions," Arup Hong Kong, Hong Kong, China, March 26<sup>th</sup>, 2014.
29. "Earthquake Resilient Design of Reinforced Concrete Tall Buildings and Highway Bridges at Near Fault Regions," Department of Civil Engineering, Hong Kong University of Science and Technology, Hong Kong, China, March 25<sup>th</sup>, 2014.
28. "Three-dimensional Seismic Analysis of Reinforced Concrete Wall Buildings and Seismic Design Implications," ACI 374 Committee, Reno, Nevada, March 24<sup>th</sup>, 2014. (Presentation given by Ms. Y. Lu)
27. "Earthquake Resilient Design of Reinforced Concrete Tall Buildings and Highway Bridges at Near Fault Regions," Department of Civil Engineering, Hong Kong University, Hong Kong, China, March 24<sup>th</sup>, 2014.
26. "Earthquake Resilient Design of Reinforced Concrete Tall Buildings and Highway Bridges at Near Fault Regions," Department of Civil and Environmental Engineering, Nanyang Technological University, Singapore, February 24<sup>th</sup>, 2014.
25. "Foundation Rocking as a Bridge Seismic Design Strategy," Northridge20 Symposium, January 16-17, Los Angeles, California.
24. "Using Base Isolation and Rocking for Earthquake Resilient Design of Structures in Near Fault Regions," 10<sup>th</sup> NEES/E-Defense meeting, December 11-13, 2013, Kyoto, Japan.
23. "Three Dimensional Beam Truss Model of Reinforced Concrete Core Walls Under Seismic Loading," ACI Committee 447, ACI Fall 2013 Convention, Phoenix.
22. "Experimental Shake Table Test Response of Bridge Columns Supported on Rocking Shallow Foundations," ACI Committee 341, ACI Fall 2013 Convention, Phoenix.
21. "Using Seismic Isolation and Rocking to Design Buildings and Bridges in Near-Fault Regions," FORELL/ELSESSER ENGINEERS INC., San Francisco, California, June 2012.
20. "Large-scale Shake Table Tests of Bridge Piers and Seismic Response of Bridges with Rocking Foundations," Workshop on design, analysis, and research related to highly nonlinear SSI including rocking foundations – an outcome of the NSF grant funded through the NEESR program. Workshop Steering Committee: B. Kutter, T. Hutchinson, L. Mejjia, M. A. Moore. June 7-8, 2013, URS Corporation, Oakland, California.
19. "Using Base Isolation and Rocking for Earthquake Resilient Design of Structures in Near Fault Regions," Presentation to Advisory Council of CEE Department of University of California, Berkeley. Berkeley, April 2013.
18. "Displacement-Based Design and Experimental Results of a Full-Scale 7-Story Building Slice Tested at UC San Diego," ACI-374 Committee, ACI Spring 2012 Convention, Dallas, March 19<sup>th</sup>, 2011.
17. "Earthquake Resistant and Resilient Tall Buildings Using Seismic Isolation and Rocking Core Walls," SEMM seminar, Seismology & Structural Standards Committee of SEAONC, November 2011.
16. "Earthquake Resistant and Resilient Tall Buildings Using Seismic Isolation and Rocking Core-

Walls,” SEMM seminar, October 2011.

15. “Earthquake Resistant and Resilient Tall Buildings Using Seismic Isolation and Rocking Core-Walls,” The 4<sup>th</sup> Japan – Greece Workshop, Seismic Design, of Foundations, Innovations in Seismic Design, and Protection of Cultural Heritage, Kobe, Japan, October 6-7, 2011.

14. “Seismic Performance of Bridges with Foundations Designed to Uplift,” Pacific Earthquake Engineering Research Center Annual Meeting, October 2011.

13. “Earthquake-Resistant and Resilient Tall Buildings Using Seismic Isolation and Rocking Core-Walls,” Pacific Earthquake Engineering Research Center Annual Meeting, October 2011.

12. “Inelastic Deformation, Shear Force Seismic Demands in Tall RC Wall Buildings and Dual Plastic Hinge Design Approach, ” ACI 318-0H Subcommittee of ACI 318, ACI Fall 2011 Convention, Cincinnati, Ohio, October, 2011.

11. “Performance-based Evaluation of the Seismic Response of Bridges with Foundation Uplift.” NEES&PEER Annual Meeting, San Francisco, CA, October 8-9, 2010.

10. “Displacement-Based Design and Experimental Results of a Full-Scale 7-Story Building Slice Tested at UC San Diego.” ACES Workshop: Performance-Based Earthquake Engineering Corfu, Greece, July 4-7, 2009.

9. “Displacement-based Design and Experimental Results of a Full-Scale 7-Story Building Slice Tested at UC San Diego.” Earthquake engineering by the beach a relaxed workshop on performance-based earthquake engineering, Anacapri, Italy, July 2-4 2009.

8. “Seismic Design, Testing and Analysis of Tall Reinforced Concrete Wall Buildings.” Geotechnical Graduate Student Society at Department of Civil and Environmental Engineering at UC Davis, May 21, 2009.

7. “Seismic Response of Tall Buildings.” Structural Engineering Association of Northern California (SEAONC), 2009 Spring Seminar, San Francisco, March 4, 2009.

6. “Recent Experimental Data and its Relevance for Design.” Tall Building Modeling Guidelines and Design Criteria, Los Angeles Tall Buildings Structural Design Council, Los Angeles, May 9, 2008.

5. “Displacement Based Design of Multistory Structural Wall Buildings and Lessons Learnt from the UCSD 7-Story Building Shake Table Test.” Rutherford and Chekene Structural and Geotechnical Consulting Engineers, San Francisco, CA, USA, July 24, 2007.

4. “Displacement Based Design of Multistory Structural Wall Buildings and Lessons Learnt from the UCSD 7-Story Building Shake Table Test.” Degenkolb Engineers, San Francisco, CA, USA, July 25, 2007.

3. “Displacement Based Design of Multistory Structural Wall Buildings and Lessons Learnt from the UCSD 7-Story Building Shake Table Test.” KPFF Consulting Engineers, Los Angeles, CA, USA, July 10, 2007.

2. “Displacement Based Design of Multistory Structural Wall Buildings and Lessons Learnt from the UCSD 7-Story Building Shake Table Test.” National Technical University of Athens (NTUA), June 10, 2007.

1. “Shake Table Response of a Full-scale Reinforced Concrete Wall Building Slice.” University of Arizona, December, 2006.

## **EDUCATION AND OUTREACH ACTIVITIES**

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1. Chair of the Organizing Committee of the Student Bridge Design Competition of the Seventh National Seismic Conference on Bridges & Highways, Oakland, California, May, 2013.