

DAWN ELLEN LEHMAN

Curriculum Vitae

Civil and Environmental Engineering
214 B More Hall, Box 352700
Seattle WA 98195

Phone: 206.715.2108
Fax: 206.543.1543
Email: delehman@u.washington

EDUCATIONAL HISTORY

University of California, Berkeley, CA
Ph.D., Civil and Environmental Engineering
December 1998

Dissertation: Performance-Based Seismic Design of Well-Confined Concrete Columns

University of California, Berkeley, CA
M.Eng., Civil and Environmental Engineering
December 1992

Thesis: Second-Order Effects in Steel Moment Frames

Tufts University, Medford, MA
B.S., Civil Engineering
May 1989

EMPLOYMENT HISTORY

University of Washington
Seattle WA USA
Associate Professor, 2009 - present

University of Washington
Seattle WA USA
Assistant Professor, 2002 - 2009

University of Washington
Seattle WA USA
Acting Assistant Professor, 1998-2002

University of California
Berkeley, CA USA
Graduate Student Researcher, 1992-1998

Alameda College
Alameda, CA USA
Lecturer, 1995

University of California
Berkeley, CA USA
Graduate Student Instructor, 1992-1994

United Engineers and Constructors
Boston MA USA
Structural Engineer, 1989-1990

AWARDS AND HONORS

2008 Munro Prize, The Engineering Structures award for the Best Paper of the Year, A cyclic shear stress-strain model for joints without transverse reinforcement (Vol 30/4 (April 2008), Pages 941-954

Outstanding Earthquake Spectra Paper, 2007, Earthquake Engineering Research Institute

John R. Kiely Professor in Civil and Environmental Engineering, 2006 -2010, UW

Transitional Support Program Award, ADVANCE, 2004, UW

Outstanding Graduate Student Instructor, 1993 UC Berkeley

Nominations

Faculty Innovator: Research, 2010, College of Engineering, UW

Distinguished Teaching Award, 2006, UW

Outstanding Educator Award in the College of Engineering, 2004, UW

AFFILIATIONS AND OTHER APPOINTMENTS

None

PUBLICATIONS

Refereed archival journal publications

1. Lumpkin, E., Roeder, C. and Lehman, D. "Seismic Performance Assessment of Concentrically Braced Steel Frames", *Journal of the Earthquake Engineering Research Institute*, accepted for publication.
2. Lumpkin, E.¹, Roeder, C.² and Lehman, D. "A New Balanced Design Method for Braced Frames in Seismic Regions", *Journal of Constructional Steel Research*, accepted for publication
3. Birely, A.¹, Lowes, L.², and Lehman D. "Practical Simulation of Concrete Moment Frame Systems", *ACI Structural Journal*, accepted for publication
4. Berman, J.W.², Wang, B.S.¹, Olson, A.¹, Roeder, C.W.², and Lehman, D.E, (2010) "A Triage Procedure for Rapidly Assessing Gusset Plates in Steel Truss Bridges" *ASCE Journal of Bridge Engineering*, accepted for publication
5. Roeder C.², Lehman D., Clark K.¹, Powell, J.¹, Yoo, JH¹, Tsai KC², Lin CH and Weic CY, "Influence of Gusset Plates Connection and Braces on the Seismic Performance of X-Braced Frames" *Earthquake Engineering and Structural Dynamics*, Volume 40, Issue 4, pages 355–374, 10 April 2011
6. Roeder, C., Lehman, D. and Bishop, E. "Strength and Stiffness of Concrete Filled Tubes", *ASCE Journal of Structural Engineering*, Vol. 136, No. 12, December 2010, pp. 1545-1553, (doi 10.1061/(ASCE)ST.1943-541X.0000263).
7. Alire, D.¹, Lehman, D., and Stanton, J²., "Seismic Evaluation of Older Reinforced Concrete Beam-Column Joints", *ACI Structural Journal*, to appear

8. Roeder, C.², Lehman, D. and Thody, R.¹ “Composite Action in CFT Components and Connections”, *AISC Engineering Journal*, Q4 2009
9. Yoo, J. H.¹, Roeder, C.² and Lehman, D. (2009) “Simulated Behavior of Multi-Story X-Braced Systems”, *Engineering Structures* 31 182-197.
10. Lehman, D., Roeder, C.², Johnston, S.¹, Herman D.¹, and Kotulka, B.¹ (2008) “Improved Seismic Performance of Gusset Plate Connections”, *ASCE Journal of Structural Engineering*, Vol. 134, No. 6, pp. 181-189.
11. Lowes, L.N., Oyen, P., and Lehman, D.E. (2009) “Evaluation and Calibration of Load-Deformation Models for Concrete Walls” *ACI-SP 265: Thomas T.C. Hsu Symposium: Shear and Torsion in Concrete Structures*. Ed. A. Belarbi, Y.L. Mo, A. Ayoub. Farmington Hills: American Concrete Institute (2009): 171-198.
12. Yoo, J. H.¹, Roeder, C.², and Lehman D. (2008) “Analytical Performance Simulation of Special Concentrically Braced Frames”, *ASCE Journal of Structural Engineering*, Vol. 134, No. 6, pp. 190-198.
13. Berry M.¹, Lehman D., and Lowes L.², (2008) “Lumped Plasticity Models for Seismic Performance Simulation of Bridge Columns”, *ACI Structural Journal*, Vol 103, No. 5, pp 270-279.
14. Yoo, J.H.¹, Lehman, D. and Roeder C.² (2008) “Influence of Gusset Plate Parameters on the Seismic Resistance of Braced Frames”, *Journal of Constructional Steel Research*, 64 pp. 607-623.
15. Anderson, M.¹, Lehman, D., and Stanton, J.² (2008) “Seismic Shear Simulation of Older Reinforced Concrete Beam-Column Joints”, *Engineering Structures*, Volume 30, Issue 4, pp. 941-954.
16. Elwood, K.², Matamoros, A.², Wallace J.², Lehman, D., Heintz, J.², Mitchell, A.², Moore, M.², Valley, M.², Lowes, L.², Comartin, C.² and Moehle, J.² (2007) “Updates to ASCE/SEI 41 Concrete Provisions.” *Earthquake Spectra*, 23(3), pp. 493-523.
17. Kingsley, A.¹, Williams, T.¹, Lehman, D. and Roeder, C.² (2005) “Experimental Investigation of Column Base Connections for High-Strength Vanadium Steel Concrete Filled Tube Construction”, *International Journal of Steel Structures*, V. 5, No. 4. November 2005, pp. 377-387.
18. Moehle, J.² and Lehman, D. (2006) “Seismic Response of Columns”, *ACI Special Publication*, Vol. 238, October 2006, pp. 23-42.
19. Roeder, C.², Lehman, D. and Yoo. J.H.¹ (2005) “Improved Design of Steel Frame Connections”, *International Journal of Steel Structures*, v.5, n.2, July 2005.
20. Lehman, D., Roeder, C.², and Larson, R.¹ (2005) “Design of Cotton Duck Bridge Bearing Pads”, *ASCE Journal of Bridge Engineering*, Volume 10, Issue 5, pp. 555-563 (September/October 2005).
21. Lehman, D., Moehle, J.², Calderone, A.³, Henry, H.³ and Mahin, S.² (2004) “Experimental Evaluation of Seismic Design Provisions for Circular Reinforced Concrete Columns”, *ASCE Journal of Structural Engineering*, June 2004.
22. Raynor, D.¹, Lehman, D., and Stanton, J.², (2002) “Bond-Slip Response of Reinforcing Bars Grouted in Ducts”, *ACI Structural Journal*, Sept.-Oct. 2002, Vol 99, No. 5.
23. Kimura, Y., Tagawa, H., Lehman, D. and MacRae, G.², (2001) “Report of Damage to Building Structures Caused by the Nisqually Earthquake in 2001”, *AIJ Journal of Technology and Design*, Architectural Institute of Japan, No. 14, pg. 373-376, December 2001.
24. Lehman, D., Elkin, S.³, Nacamuli, A.³, and Moehle, J.² (2001) “Repair of Earthquake-Damaged Bridge Columns”, *ACI Structural Journal*, March-April 2001.
25. Elkin, S.³, Nacamuli, A.³, Lehman, D., and Moehle, J. (1999) “Seismic Performance of Damaged Bridge Columns”, *Earthquake Engineering and Engineering Seismology*, September 1999, Vol. 1, Number 1.

Refereed archival journal publications in review

26. Hannesson, G.; Kuder, K.; Lehman, D. ; Shogren, R. (2010) "The influence of high volume of SCM on the compressive strength of SCC", *Cement and Concrete Research* (submitted October 2010)
27. Birely, A¹, Lowes, L.², and Lehman D. "Effective Nonlinear Simulation Model for Reinforced Concrete Joints", *ASCE Journal of Structural Engineering*, (submitted 2010)
28. Moon, J.H., Roeder, C., Lehman D. and Lee, H. "Finite Element Modeling and Behavior of Circular Concrete-filled Tubes Subjected to Bending", *Engineering Structures* (submitted Oct 2010)
29. Lehman, D., Roeder, C.² and Stringer S.¹ "Seismic Performance Evaluation of Pile-to-Wharf Connections", *Journal of the Precast Concrete Institute* (submitted April 2011)

Refereed archival journal discussions

1. LaFave, J.² and Lehman, D. "Discussion of Test of High-Rise Core Wall: Effective Stiffness for Seismic Analysis (Title no. 104-S52) by Adebar and Ibrahim" *ACI Structural Journal*, July 2008,
2. Moehle, J.P.², Rodriquez, A.³ and Lehman, D., "Discussion of Simulated Seismic Load Tests on Reinforced Concrete Columns by Watson and Park," *ASCE Journal of Structural Engineering*, February 1996, Vol. 122, No. 2.

Note: former graduate student¹, colleague², former student colleague at UC Berkeley³

Conference proceedings and other non-journal articles

Fully refereed publications

1. Birely*, A., Lowes, L.N., Lehman, D.E., Marley, K., Hart, C., Kuchma, D. "Investigation of the Seismic Response of Slender Concrete Walls," *Proceedings of the 9th U.S. National and 10th Canadian Conference on Earthquake Engineering: 25-29 July 2010, Toronto, CA.* Oakland: EERI, July 2010. Paper 773. 10 p.
2. Birely*, A., Lowes, L.N., Lehman, D.E. "Practical Linear and Nonlinear Models of Reinforced Concrete Beam-Column Joints in Existing Structures," *Proceedings of the 9th U.S. National and 10th Canadian Conference on Earthquake Engineering: 25-29 July 2010, Toronto, CA.* Oakland: EERI, July 2010. Paper 694. 11 p.
3. Lehman, D. Lowes, L., Birely, A., Doepker, B. Kuchma, D., Hart, C. and Marley, K. (2008) "Performance Assessment of Modern Walled Buildings", Paper 27, SEAOC Annual Meeting Proceedings, September 2008.
4. Birely, A., Lowes, L. and Lehman D. (2008) "Practical Modeling of Reinforced-Concrete Beam-Column Joints in Non-Ductile Structures, SEAOC Annual Meeting Proceedings, September 2008.
5. Clark, K., Powell, J., Lehman, D., Roeder, C., and Tsai, K.C. Experimental Performance of Multi-Story X-Braced Frame Systems, Paper 26, SEAOC Annual Meeting Proceedings, September 2008.
6. Roeder, C.W., and Lehman, D.E., (2008) "An Economical and Efficient Foundation Connection for Concrete Filled Steel Tube Piers and Columns," Proceedings, Engineering Foundation, Composite Construction VI, Winter Park. CO. July 2008
7. Roeder, C.W., and Lehman, D.E. (2008) "Gusset Plate Connections for Seismic Design," Proceedings, CONNECTIONS VI, International Workshop on Connections in Steel Structures 2008, Chicago, IL, June 23-25, 2008.
8. Doepker, B., Lowes, L., and Lehman, D. (2008) "Evaluation of Practical Methods for Analysis of Reinforced Concrete Walls", ASCE/SEI, Proceedings of Structures Congress, Vancouver, BC Canada April 2008.

9. Lehman, D.E., and Roeder, C.W., (2008) "Improved Seismic Design of Concentrically Braced Frames and Gusset Plate Connections," ASCE/SEI, Proceedings of Structures Congress, Vancouver, BC Canada April 2008.
10. Powell, J., Clark, K., Lehman, D.E. Roeder, C.W., and Tsai, K.C. (2008) "Test of a Full Scale Concentrically Braced Frame with Multi-Story X-Bracing," ASCE/SEI, Proceedings of Structures Congress, Vancouver, B.C. Canada April 2008
11. Roeder, C.W., and Lehman, D.E. (2008) "Concrete Filled Steel Tubes for Rapid Construction of Bridge Piers," 2008 FHWA Accelerated Bridge Construction Conference - Highway for Life," Proceedings, Baltimore, MD, March 20-21, 2008.
12. Roeder, C. and Lehman, D. (2008) "Seismic Design and Behavior of Concentrically Braced Steel Frames", Structure Magazine, pp. 37-39, February 2008.
13. Roeder, C.W., and Lehman, D.E. (2007) "Emerging Trends in Design of Special Concentrically Braced Frames," Proceedings, Annual meeting, Structural Engineers Association of California, Lake Tahoe, California. September 2007.
14. Roeder, C.W., and Lehman, D.E., (2007) "SCBF Gusset Plate Connection Design," Proceedings, AISC, North American Steel Construction Congress, New Orleans, LA, April 2007.
15. Roeder, C.W., and Lehman, D.E., (2007) "Composite Action in Concrete Filled Steel Tubes," Keynote address, Pacific Structural Steel Conference 2007, Wairakei, New Zealand, 13-16 March, 2007
16. Roeder, C.W., Lehman, D.E., Johnson, S., and Herman, D., (2007) "Experimental Study of Seismic Performance of Braced Frame Gusset Plate Connections," Pacific Structural Steel Conference 2007, Wairakei, New Zealand, 13-16 March, 2007.
17. Kingsley, A.M., Williams, T.S., Lehman, D.E., and Roeder, C.W. (2006) "Experimental and analytical investigation of vanadium micro-alloyed concrete-filled tube-concrete footing connections," 11th International Symposium on Tubular Structures, Quebec City, Quebec, Canada, August 31-September 2, 2006.
18. Roeder, C.W., Lehman, D.E., Johnson, S., Herman, D., and Yoo, J.H., (2006) "Seismic Performance of SCBF Braced Frame Gusset Plate Connections," 4th International Conference on Earthquake Engineering, Taipei, Taiwan, October 12-13, 2006.
19. Yoo, J.H., Roeder, C.W., and Lehman, D.E. (2006) "Finite Element Simulation of Buckling Restrained Braced Frame Tests," 4th International Symposium on Steel Structures, November 16-17, 2006, Seoul, Korea.
20. Roeder, C.W., Lehman, D.E., Johnson, S., Herman, D., and Yoo, J.H. (2006) "Seismic Performance of Concentrically Braced Frames with Gusset Plate Connections," 4th International Symposium on Steel Structures, November 16-17, 2006, Seoul, Korea.
21. Herman, D. , Johnston, S. , Lehman, D. and Roeder, C., (2006) "Improved Seismic Design of Specially Concentrically Braced Frames", Proceedings of the Eighth National Conference on Earthquake Engineering, San Francisco, CA, April 2006, Paper No. 1356.
22. Roeder, C., Lehman, D. and Christopolus, A., (2006) "Seismic Performance of Special Concentrically Braced Frames with Buckling Restrained Braces", Proceedings of the Eighth National Conference on Earthquake Engineering, San Francisco, CA, April 2006, Paper No. 1503.
23. Kingsley, A. , Williams, T. , Lehman, D. and Roeder, C., (2006) "Experimental Investigation of Column-to-Foundation Connections for Concrete-Filled High-Strength Steel Tubes", Proceedings of the Eighth National Conference on Earthquake Engineering, San Francisco, CA, April 2006, Paper No. 1511.
24. Brown, P., Kuchma, D., Lehman, D., Lowes, L., Oyen, P., Sterns, A. and Zhang, J. (2006) "Investigation of the Seismic Behavior and Analysis of Reinforced Concrete Structural Walls", Proceedings of the Eighth National Conference on Earthquake Engineering, San Francisco, CA, April 2006, Paper No. 0352.

25. Lehman D., Stanton J., Anderson M., Alire D., and Walker S. (2004) "Seismic Performance of Older Beam-Column Joints", Proceedings of the 13th World Conference on Earthquake Engineering, Vancouver, B.C., Canada, August 1-6, 2004, Paper No. 1464.
26. Lehman D., Roeder, C., Yoo, J.H., and Johnson, S. (2004) "Seismic Response of Braced Frame Connections", Proceedings of the 13th World Conference on Earthquake Engineering, Vancouver, B.C., Canada, August 1-6, 2004, Paper No. 1459.
27. Walker, S., Yeargin, C., Lehman D., and Stanton, J. (2002) "Performance-based Seismic Evaluation of Existing Joints" Proceedings of the Seventh U. S. National Conference on Earthquake Engineering, Paper # 673, May 2002.
28. Lehman, D., Elkin, S. , Nacamuli, A. , and Moehle, J. (1998) "Repair of Moderately and Severely Damaged Bridge Columns", Proceedings of the Sixth U. S. National Conference on Earthquake Engineering, Paper # 86, May 1998.
29. Lehman, D., Calderone, A. and Moehle, J. (1998) "Behavior and Design of Slender Columns Subjected to Lateral Loading", Proceedings of the Sixth U. S. National Conference on Earthquake Engineering, Paper # 87, May 1998.

Refereed by abstract only

1. Birely*, A., Lowes, L.N., Lehman, D.E. "A Practical Model for Beam-Column Connections Behavior in Reinforced Concrete Frames," *Proceedings of the 2009 ATC&SEI Conference on Improving the Seismic Performance of Existing Buildings and Other Structures, San Francisco, December 2009.*
2. Lowes, L.N., Lehman, D.E., Birely*, A., Pugh, J., Kuchma, D., Hart, C., Marley, K. "Investigation of the Seismic Response of Slender Concrete Walls." *Proceedings of the SEAOC 2009 Convention, September 2009, San Diego, CA*
3. Birely*, A., Lehman, D.E., Lowes, L.N. "A Practical Model for Beam-Column Connection Behavior in Reinforced Concrete Frames ," *Proceedings of the 2009 Structures Congress and Exposition 29 April – 1 May 2009, Austin, TX.*
4. Kingsley, A. , Williams, T. , Lehman, D., and Roeder, C. "Experimental and Analytical Investigation of Vanadium Micro-alloyed Concrete-filled Tube Footing Connections", ISTSS, Quebec, Canada, August 2006.
5. Roeder, C. Lehman, D., and Yoo, J. "Finite Element Simulation of Special Concentrically Braced Frame Tests", STESSA 2006, Yokohama Japan, August 2006.
6. Roeder, C., and Lehman, D., "Seismic Design of Braced Frame Gusset Plate Connections," Fifth International Conference on Earthquake Resistant Engineering Structures, Skiathos, Greece, May 28-June 1, 2005.
7. Roeder, C., Lehman, D., and Yoo, J. "Performance-Based Design of Gusset-Plate Braced Frame Connections", Connections in Steel Structures V - Innovative Steel Connections, Radisson SAS Hotel, Amsterdam, The Netherlands, June 3-4, 2004.
8. Roeder, C., Lehman, D., and Yoo, J. "Performance-Based Design of Braced Frame Connections", Seventh Pacific Structural Steel Conference, Long Beach, CA, March 2004, sponsored by AISC, Chicago, IL.
9. Anderson, M. , Lehman, D., and Stanton, J. "A Constitutive Model for Beam-Column Joint Shear Response in Older Construction", ASCE Structures Congress, May 2003.
10. Larson, R. , Lehman, D., and Roeder, C. "Response of Cotton Duck Elastomeric Bearing Pads to Static and Dynamic Loading", 5th NSF Workshop on Bridge Research in Progress, Minneapolis, MN, October 2001.
11. Walker, S. , Yeargin, C., Lehman, D., and Stanton, J. "Influence of Joint Shear Stress Demand and Displacement History on the Seismic Performance of Beam-Column Joints", US-Japan Workshop on Performance-Based Seismic Design of Reinforced Concrete Buildings, Seattle WA, August 2001.

12. Lehman, D., Mosier, W. , and Stanton, J. "Seismic Assessment of Reinforced Concrete Beam-Column Joints", US-Japan Workshop on Performance-Based Seismic Design of Reinforced Concrete Buildings, September 2000.
13. Lehman, D. and Moehle, J. "Performance-Based Seismic Design of Reinforced Concrete Bridge Columns", Twelfth World Earthquake Engineering Conference, New Zealand, January 2000.
14. Lehman, D. and Moehle, J., "Influence of Longitudinal Reinforcement Ratio on Column Response", Eleventh European Earthquake Engineering Conference, Paris, France, September 1998.
15. Lehman, D. and Moehle, J., "Influence of Longitudinal Reinforcement Ratio on Column Response", Second National Seismic Conference on Bridges and Highways, Sacramento, CA, 1997.
16. Lehman, D., Moehle, J. and Mahin, S., "Design of an Experimental Study on the Influence of Aspect Ratio and Longitudinal Reinforcement Ratio on Column Response", Fourth Caltrans Seismic Research Workshop, Sacramento, CA, July 1996.
17. Lehman, D., Lynn, A., Aschheim, M., and Moehle, J., "Evaluation Methods for Reinforced Concrete Columns and Connections", Eleventh World Conference on Earthquake Engineering, Acapulco, Mexico, June 1996.
18. Moehle, J. and Lehman, D., "Evaluation and Upgrading of Existing Reinforced Concrete Buildings", Advances in Earthquake Engineering Practice, Berkeley, CA, May 1994.

Complete books written

None

Parts of books (chapters in edited books)

None

Books edited

None

Journal issues edited

None

Patents submitted and/or awarded

None

Abstracts, letters, non-refereed papers, technical reports

1. Inouye, B., Lehman, D. and Stanton, J. (2004) "Seismic Evaluation of the SR-99 Spokane Street Overcrossing", Final Report to Washington State Department of Transportation, Olympia, WA.
2. Lehman, D.E, Roeder, C.W., Larsen, R.A., and Curtin, K., (2003) "Cotton Duck Bearing Pads: Engineering Evaluation and Design Recommendations," Final Report to Washington State Department of Transportation, Olympia, WA.
3. Roeder, C.W., Lehman, D.E., and Larsen, R., (2002) "Strength, Stiffness and Durability of Cotton Duck Bearing Pads for Bridge Applications," Final Report to Arkansas State University, Dept. of Civil Engineering, U. of Washington, Seattle, WA, August 2002.
4. Lehman, D.E. Performance Characterization of Non-Ductile Building Frame Components, PEER Report Series, in press.
5. Calderone, A., Lehman, D., Moehle, J. (2001) Behavior of Reinforced Concrete Bridge Columns Having Varying Aspect Ratios and Varying Lengths of Confinement, PEER 2000/08, Jan 2001, 136 pp.

6. Lehman, D. and Moehle, J. (2000) Performance-Based Seismic Design of Well-Confined Concrete Columns, PEER Research Report 1998/01, December 2000.
7. Lehman, D. (1998) Performance-Based Seismic Design of Well-Confined Concrete Columns, Ph.D. Dissertation, University of California, Berkeley, CA, October 1998.
8. Moehle, J., Nicoletti, J. and Lehman, D., (1994) *Review of Seismic Research Results on Existing Buildings, Product 3.1 of the Proposition 122 Seismic Retrofit Practices Improvement Program*, SSC Report No. 94-03, Fall 1994.
9. Architectural Institute of Japan, *Preliminary Reconnaissance Report of the 1995 Hyogoken-Nanbu Earthquake, English Edition*, April 1995.
10. Moehle, J. P. Editor, *Preliminary Report on the Seismological and Engineering Aspects of the January 17, 1994 Northridge Earthquake*, EERC, UBC/EERC-94/01, January 1994.

Other significant research dissemination (web sites, software, Wikis, etc.)

None

OTHER SCHOLARLY ACTIVITY

Invited lectures and seminars

1. "Accelerated Bridge Construction through Concrete Filled Tubes", (2010), California Department of Transportation, February 2010.
2. "Advances in Connections for SCBFs", (2009) Magnusson Klemencic Associates, February 2009.
3. "Damage-Resistant Pile-to-Wharf Connections" (2009) Seismic-Mitigation of Port Systems, Georgia Tech, February 2009.
4. "Part-Time Faculty Position: An Oxymoron?"(2008) Advance Quarterly Leadership Workshop, February 2008.
5. "Emerging Trends in the Seismic Design of Braced Frames" (2007) SEAOC Annual Meeting, Lake Tahoe, CA, September 2007.
6. "Rapid Construction using Concrete-Filled Tube Piers and Columns", (2006) WashDOT Seminar, Washington Department of Transportation, Olympia, WA, July 2006.
7. "Seismic Response of Beam-Column Connections", (2006) Seminar on Seismic Performance of Existing Reinforced Concrete Buildings. Eighth National Conference on Earthquake Engineering, San Francisco, CA, April 2006.
8. "CFVST in Military Structural Applications", (2006) Vanadium In-Process Review, Pittsburgh, PA, March 2006.
9. "Seismic Performance of Connections in SCBFs", (2006), Georgia Institute of Technology, Structural Engineering Seminar, Atlanta, GA, January 2006.
10. "Seismic Response of Beam-Column Connections", (2006) PEER Annual Meeting, San Francisco, CA, January 2006.
11. "Concrete-Filled Tube Elements for Army Structural Applications", (2005) Vanadium In-Process Review, Pittsburgh, PA, April 2005.
12. "High-Strength Vanadium-Alloy Columns and Their Connections", (2005) ACI Committee 335, Composite Construction, April 2005.
13. "Engineering Evaluation and Design of Cotton Duck Bearing Pads", (2003) Washington Department of Transportation, Lacey, WA, June 2003.
14. "Performance of Non-ductile Building Components", (2003) PEER-NSF Site Review, Berkeley, CA, May 2003.
15. "Research Needs in Performance-Based Seismic Evaluation of Non-Ductile R/C Buildings", (2003) PEER Annual Meeting, Palm Springs CA, February 2003.

16. "Experimental Evaluation of Non-Ductile Reinforced Concrete Beam-Column Joints", (2001) US-Japan Workshop on Performance-Based Seismic Design of Reinforced Concrete Buildings, Seattle WA, August 2001.
17. "Performance-Based Seismic Assessment of Non-Ductile Building Components", (2001) Structural Engineers Association of Washington, Lateral Forces Committee, Seattle, WA, July 2001.
18. "Response of Non-Ductile Building Components", (2001) NSF Site Review, PEER center, May 2001.
19. "Building Component Characterization", (2000) PEER Annual Meeting, Berkeley, CA, January 2000.
20. "Seismic Performance of Reinforced Concrete Beam-Column Connections", (2000) US-Japan Workshop on Performance-Based Seismic Design of Reinforced Concrete Buildings, September 2000.
21. "Capacity Assessment", (2000) PEER-NSF Site Review, PEER Research Center, Richmond CA, May 2000.
22. "Performance-Based Seismic Engineering of Reinforced Concrete Structures", (1999) Workshop for Engineering Educators, NSF, Washington DC, September 1999.
23. "Performance Evaluation of Modern Bridge Columns", (1998), University of Washington Faculty Seminar Series, Seattle WA, November 1998.
24. "Performance-Based Design of Bridge Columns", (1998), UCD Seminar Series, Davis CA, March 1998.
25. "Performance Evaluation of Modern Bridge Columns", (1998), University of Kansas Seminar Series, Lawrence KS, February 1998.
26. "Performance Evaluation of Modern Bridge Columns", (1998), University of Massachusetts Seminar Series, Amherst MA, February 1998.
27. "Performance Evaluation of Modern Bridge Columns", (1997), UCSD Seminar Series, November 1997.
28. "Performance Evaluation of Modern Bridge Columns", (1997), UCLA Seminar Series, May 1997.

Presentations given at conferences (only presentations made by Lehman listed)

1. "Concrete Filled Tubes for Rapid Construction of Bridges", (2009), Seismic Committee, TRB, Washington DC January 2010
2. "Seismic Performance of Structural Concrete Walls", (2009), SEAOC Annual Meeting, San Diego CA September 2009
3. "Experimental Evaluation of Planar Walls", (2008), SEAOC Annual Meeting, Hawaii, September 2008
4. "Emerging Trends in Seismic Design of Concentrically Braced Frames", (2008), NEES Annual Meeting, Portland OR, June 2008.
5. "Seismic Performance of Planar Walls", (2008), NEES Annual Meeting, Portland OR, June 2008.
6. "Seismic Performance of Special Concentrically Braced Frames with Buckling Restrained Braces", (2006) Eighth National Conference on Earthquake Engineering, San Francisco, CA, April 2006.
7. "Seismic Performance of Bridge Columns", (2005) ACI Spring Convention, Charleston North Carolina, March 2005.
8. "Seismic Evaluation and Retrofit Techniques for Reinforced Concrete Bridges", (2004) ACI Spring Convention, March 2004.
9. "AASHTO Design Criteria for Cotton Duck Bearing Pads", (2004) TRB Annual Meeting, Washington DC, January 2004.

10. "Engineering Evaluation of Cotton Duck Bearing Pads", (2003) AASHTO Annual Meeting, Albuquerque, NM, June 2003.
11. "Simulation of Beam-Column Joint Performance", (2003) ASCE Structures Congress, Seattle, WA, May 2003.
12. "Performance-Based Design of Bridge Columns: Field and Laboratory Observations", (2003), ACI Spring Convention, Vancouver British Columbia, March 2003.
13. "Seismic Performance of Beam-Column Joints", (2000), ACI Fall Convention, Toronto, Canada, October 2000.
14. "Seismic Performance of Non-Participating Elements", (2000), ACI Spring Convention, San Diego CA, March 2000.
15. "Performance-Based Seismic Design of Bridge Columns", (2000), ACI Spring Convention, San Diego CA, March 2000.
16. "Performance-Based Seismic Design of Bridges", (2000), World Conference on Earthquake Engineering, Auckland, New Zealand, January 2000.
17. "Seismic Design of Reinforced Concrete Bridges", (1999), ACI Fall Convention, Baltimore MD, November 1999.
18. "Seismic Design and Repair of Reinforced Concrete Bridge Columns", (1998), Industrial Liaison Program, U. C. Berkeley, Berkeley CA, March 1998.
19. "Influence of Longitudinal Reinforcement Ratio on Column Response", (1997), National Seismic Conference on Bridges and Highways, Sacramento, CA, July 1997.
20. "Strength and Stiffness Degradation in Bridge Columns," ACI Spring Convention, (1997), Seattle WA, May 1997.
21. "Design of an Experimental Study on the Influence of Aspect Ratio and Longitudinal Reinforcement Ratio on Column Response," (1996), Fourth Caltrans Seismic Research Workshop, Sacramento, CA, July 1996.

Professional society memberships

American Society of Civil Engineers
American Concrete Institute
American Institute of Steel Construction

Other

Journal or Other	Number
<i>Earthquake Engineering and Structural Dynamics</i>	3
<i>American Concrete Institute, Structural Journal</i>	5
<i>Royalty Research Fund</i>	1
<i>Earthquake Spectra EERI</i>	5
<i>Journal of Structural Engineering ASCE</i>	10
<i>Journal of Bridge Engineering, ASCE</i>	2
<i>Text: Concrete Structures, Nilson</i>	1
<i>Other (special publications)</i>	1

GRADUATE STUDENTS

Chaired Doctoral Degrees

Student Name	Dissertation Title (Funding Agency)	Completed (Year)	Current Employer
Bo-Shaun			
Po-Chien Hsaio (co-chair with Roeder)	Engineering Tools for PBEE of SCBFs (NSF)	(expected) 2011	
Anna Bierly (co-chair with Lowes)	Performance-Based Engineering of Complex Wall Systems (NSF)	(expected) 2011	
Jung Han Yoo (co-chair with Roeder)	Analytical Investigation on the Seismic Performance of Special Concentrically Braced Frames (NSF)	2006	Structural Steel Company, Korea

Chaired Masters Degrees

Student Name	Level of Supervision	Thesis (funding agency)	Completed (Year)	Current Employer
Aaron Olson	Thesis	WashDOT	In progress	
Jake Turgeon	Thesis	NSF	In progress	
Maurizio Chiaramonte	Thesis	PEER	In progress	
Jason Lee (co-chair with Roeder)	Thesis	Caltrans	In progress	
Stuart Stringer (co-chair with Roeder)	Thesis	PEER/Moffitt and Nicol	In process	
Eric Bishop (co-chair with Roeder)	Thesis	(California Department of Transportation)	2009	Reid/Middleton
Eric Lumpkin (co-chair with Roeder)	Thesis	(NSF)	2009	
Emily Brackman (co-chair with Roeder)	Thesis	(NSF)	2009	Moffatt & Nichol
Jacob Powell (co-chair with Roeder)	Thesis	(NSF)	2010	
Kelly Clark (co-chair with Roeder)	Thesis	(NSF)	2009	
Amanda Jellin (co-chair with Roeder)	Thesis	Improved Connections for Pile-Wharf Construction (NSF)	August 2008	
Blake Doepker (co-chair with Lowes)	Thesis	(NSF)	December 2008	

Wayne Brown (co-chair with Stanton)	Thesis	Effect of Spiral Properties on Bar Buckling in Bridge Columns (NSF through PEER Center)	2008	Magnussun Klemencic Associates (MKA)
Danya Mohr (co-chair with Lowes)	Thesis	Nonlinear Analysis and PBEE for Reinforced Concrete Coupled Shear Walls (NSF)	2007	MKA
Claudio Esteban Osses-Henriquez (co-chair with Lowes)	Thesis	Advancements on the Disturbed Stress Field Model (NSF)	2007	MKA
Brandon Kotulka (co-chair with Roeder)	Thesis	Analysis for a Design Guide on Gusset Plates used in SCBFs (NSF)	2007	MKA
David Herman (co-chair with Roeder)	Thesis	Further Improvements on SCBFs (NSF)	2007	MKA
Ryan Thody (co-chair with Roeder)	Thesis	Experimental Investigation of Flexural Properties of High-Strength CFTs (ARMY)	2006	CPL
Paul Oyen (co-chair with Lowes)	Thesis	Evaluation of Analytical Tools for Determining the Seismic Response of Walls (NSF)	2006	
Travis Williams (co-chair with Roeder)	Thesis	Experimental Investigation of High-Strength CFTs with Embedded Column Connections (ARMY)	2006	
Dylan Freytag (co-chair with Stanton)	Thesis	Bar Buckling in Reinforced Concrete Bridge Columns (NSF through PEER Center)	2006	Walter P. Moore Austin TX
Aaron Sterns	Projects	(NSF)	2006	
Angela Kingsley (co-chair with Roeder)	Thesis	Experimental and Analytical Investigation of CFT Column-Base Connections (ARMY)	2005	University of Minnesota
Adam Christopoulos (co-chair with Roeder)	Thesis	Improved Seismic Performance of Buckling Restrained Braced Frames (NSF)	2005	
Jason Evers	Project	(ARMY)	2005	
Shawn Johnson (co-chair with Roeder)	Thesis	Improved Seismic Performance of SCBFs (NSF)	2005	MKA
Steve Smith (co-chair with Stanton)	Thesis	Models for Performance Evaluation of Older Joints (NSF through PEER center)	2005	
Ingvar Gunnarsson (co-chair with	Thesis	Numerical Performance Evaluation of Braced	2004	

Roeder)		Frame Systems (VALLE)		
Meredith Anderson (co-chair with Stanton)	Thesis	Analytical Modeling of Existing Reinforced Concrete Joints (NSF through PEER)	2003	
Russell Larson (co-chair with Roeder)	Thesis	Strength, Stiffness, and Durability of Cotton Duck Bearing Pads for Bridges (WashDOT)	2003	
Daniel Alire (co-chair with Stanton)	Thesis	Seismic Evaluation of Existing Joints (NSF through PEER Center)	2002	
Steve Walker (with Stanton)	Thesis	Seismic Performance of Existing R/C Joints (NSF through PEER center)	2001	
Daniel Raynor	Thesis	Bond Assessment of Hybrid Frame Continuity Reinforcement (Pankow)	2000	Berger/ABAM
William (Greg) Mosier	Thesis	Seismic Assessment of Reinforced Concrete Joints	2000	

Other significant student supervision

Student Name	Level of Supervision ("thesis," "project" or "coursework only")	Thesis/Paper Title (if applicable)	Completed (Year)
Michael Berry	Dissertation	Committee member	
Nilanjan Mitra	Dissertation	Committee member	
Peter Brown	Thesis	Committee member	
Micheal Berry	Thesis	Committee member	
Chaitanya Paspuleti	Thesis	Committee member	
Myles Parrish	Thesis	Committee member	
Adam Theiss	Thesis	Committee member	
Hakon Bardson	Thesis	Committee member	
Stephen Day	Thesis	Committee member	
Amit Mookerje	Thesis	Committee member	
Juan Carlos Ramirez	Thesis	Committee member	
Rebecca Hix	Thesis	Committee member	

RESEARCH ACTIVITIES

Funded Research

PIs	Title	Amount	Funding Agency	Period
Lehman (PI) Kuder (co-PI) Whittaker (co-PI) Berman (SP)	NEESR-CR: Minimizing Earthquake Damage and Embedded Carbon with Composite Walls	\$1,184,055.00	NSF	2010-2014
Roeder (PI) Berman (co-PI) Lehman (SP)	NEESR-CR: Reducing the Collapse Potential of Low Ductility Braced Frames	\$950,000	NSF	2010-2014

PIs	Title	Amount	Funding Agency	Period
Roeder (PI) Lehman (co-PI)	Thin Composite Slab- Column Systems to Enhance Resilient Construction	\$348,072.00	NSF	2010-2014
Lehman (PI) Roeder (co-PI) Kuder (co-PI)	An Environmentally- Conscious Structural System to Achieve ABC in High Seismic Zones	\$50,000	TransNOW	2009-2010
Roeder (PI) Lehman (co-PI)	Design of Bridge Foundations with Steel Connections	\$75,000	WashDOT	2010-2011
Lehman (PI) Roeder (co-PI) Kuder (co-PI)	An Environmentally- Conscious Structural System to Achieve ABC in High Seismic Zones	\$57,000	TransNOW	2009-2010
Roeder (PI) Lehman (co-PI)	Improved Performance of Pile Connections	\$65,000	PEER	2008-2009
Berman (PI) Roeder (co-PI) Lehman (co-PI)	Evaluation Procedures for Gusset Plates	\$200,000	WashDOT/FHWA	2009-2010
Lehman (PI) Roeder (co-PI)	Construction of Bridge Piers with Improved Seismic Performance	\$350,000	Caltrans	2008-2011
Lehman (PI) with Roeder, Stanton, Lowes, Miller (co-PIs) + 4 SP	MRI: Acquisition of Equipment to Simulate Collapse of Engineered Systems under Extreme Loads	<u>\$679,548 (total)</u> \$559,548 (NSF) \$120,000 (UW)	NSF/UW	2007-2010
Lehman (co-PI) Roeder (PI) With Mahin (UCB), Okazaki (UM), Kasai (e-Defense)	NEES-SG: International Hybrid Simulation of Tomorrow's Braced Frame Systems	\$1,420,000 subcontracts UCB (192,57), UMinn (340,000), UA (72,000) e-Defense (200,000)	NSF	2006 - 2010
Lehman (PI) Stanton (co-PI)	Damage Models for Hybrid Connections	\$85,000	NSF through PEER center	2006-2007
Lehman and Roeder UW Rix (GTech) PI	NEES-GC: Seismic Hazard Mitigation of Port Systems	\$270,000 Subcontract from Georgia School of Technology	NSF	2005-2010
Lehman (co-PI) Roeder (PI)	Improved Seismic Performance of Braced Frame Systems	\$30,000	AISC	2006-2007
Lehman (co-PI) Roeder (PI) with Miller (Yr 2&3) MacKenzie (Yr 3)	Vanadium Alloy Steel Tubes for Army Engineering Applications	\$100,000 (yr 4) \$575,00 (yr 3) \$350,000 (yr 2) \$92,000 (yr 1) <u>\$45,000 (case study)</u> \$ 1,160,000 (total)	US ARMY	2001-2007

PIs	Title	Amount	Funding Agency	Period
Lehman (PI) Stanton (co-PI)	Damage Models for Bar Buckling in Beams and Columns	\$85,000 (yr 3) \$85,000 (yr 2) \$90,000 (yr 1) \$260,000 (total)	NSF through PEER center	2004-2007
Lehman (co-PI) Lowe (PI) with Kuchma (UIUC) Zang (UCLA)	NEESR-SG: Behavior, Simulation, and Performance of Structural Wall Systems	\$1,540,000 with \$750,000 subcontracts to UIUC and UCLA	NSF	2004-2008
Lehman (co-PI) Roeder (PI)	Performance-Based Seismic Design of Concentrically Braced Frames	\$296,278	NSF	2003-2006
Lehman (co-PI) Roeder (PI)	REU supplemental to NSF Braced Frame Project	\$15,000	NSF	2004-2006
Lehman (PI) Stanton (co-PI)	Validation of Simulation and Performance Models for Beam-Column Joints	\$75,000	NSF through PEER center	2003-2004
Lehman (co-PI) Roeder (PI)	Design Recommendations for Cotton Duck Bearing Pads	\$45,000	WashDOT	2002-2003
Lehman (PI) Stanton (co-PI) Lowe (co-PI)	Development of Performance Tools for Reinforced Concrete Beam-Column Joints	\$80,000	NSF through PEER center	2001-2002
Lehman (co-PI) Stanton (PI) Kramer (co-PI)	Assessment and Retrofit of Outrigger Bents	\$140,000	WashDOT	2001-2003
Lehman (co-PI) Roeder (PI)	Cotton-Duck Pad Bridge Bearings	\$93,000	Arkansas Office of Science and Technology	2000-2002
Lehman (PI) Meszaros (co-PI) (UW Bothell)	Decision-Making about Seismic Performance	\$75,000	NSF through PEER center	2000-2002
Lehman (PI)	Non-Ductile RC Building Frames	\$20,000	NSF through PEER center	2000-2001
Lehman (PI) Stanton (co-PI)	Seismic Performance of Existing RC Beam- Column Joints	\$250,000	NSF through PEER center	1999-2002
Lehman (co-PI) Stanton (PI)	Performance of Grouted Reinforcing Bars for Use in a Hybrid Frame System	\$50,000	Pankow Builders	1999-2000
Lehman and Lowe (administered by Moehle UCB)	Anchorage of Headed Reinforcement Subjected to Cyclic Loading	\$40,000	ACI and Mobil Corporation	1998-1999
Lehman (administered by Moehle UCB)	Repair of Severely Damaged Bridge Columns	\$55,000	Caltrans	1997-1999

Pending Proposals

PIs	Title	Amount	Funding Agency	Period
Lehman (PI) Roeder (co-PI) Kuder (co-PI)	An Environmentally-Conscious Structural System to Achieve ABC in High Seismic Zones	\$88796	TransNOW	2010-2011

DOCUMENTATION OF TEACHING EFFECTIVENESS

Courses Taught & Student Evaluations

Course	Title	Quarter	Credit Hrs	Enrollment	Evaluations? Response	Item 1	Item 3	Item 4	Average, Items 1-4
CEE 452	RC Concrete	Autumn 1999	3	11	Yes, 9/11	4.7	5	4.9	4.8
CEE 502	Structural Dynamics	Winter 1999	3	22	Yes, 20/22	3.9	3.9	3.6	3.9
CEE 502	Structural Dynamics	Winter 2000	3	21	Yes, 17/21	3.3	3.3	3.1	3.3
CEE 442	Capstone Design	Winter 2000	3	7	Yes, 7/7	3.8	3.7	3.7	3.8
CEE 452	RC Concrete	Autumn 2000	3	45	Yes, 40/45	3.6	3.8	3.6	3.6
CEE 502	Structural Dynamics	Winter 2001	3	13	Yes, 12/13	4.0	4.1	4.2	4.1
CEE 511	RC Concrete	Autumn 2001	3	19	Yes, 17/19	3.3	3.6	3.3	3.3
CEE 452	RC Concrete	Autumn 2002	3	40	Yes, 35/40	4.0	4.1	4.0	4.0
CEE 502	Structural Dynamic	Winter 2003	3	12	Yes, 10/12	4.0	4.1	3.8	3.9
CEE 452	RC Concrete	Autumn 2003	3	47	Yes, 35/47	4.4	4.7	4.6	4.4
CEE 452	RC Concrete	Autumn 2005	3	65	Yes, 40/60	3.7	3.6	3.6	3.7
CEE 500	Seminar	2007-2008	1		N/A				
CEE 452	RC Concrete	Autumn 2008	3	48	Yes, 38/48	4.0	4.4	4.2	4.2

Supervision of independent study (design projects and research)

Stuart Stringer
Matthew Godsey
Matthew Koch

Amanda Jellin
George Gimas
Tim Grant
Russell Larson
Chris Nickerson
Danya Mohr
Violaine Thomassin

SERVICE

Departmental service

2010 Member, Mentor Committee for Anne Goodchild
2010 Member, Mentor Committee for Michael Dodd
2009 Member, CEE Chair Search Committee
2009 Member, CEE Committee on Mentoring Committees
2008 - 2009 Member, CEE Strategic Hiring Committee
2007 – 2008 Member, CEE Search Committee
2006 – Present Director of Structures Research Laboratory
2001 Open House Coordinator
2000 Member, Environmental Engineering Chemistry Search Committee

College service

1998-1999 Student Affairs Committee

University service

Panelist for Career Symposium for Doctoral Students and Post-Docs, Balancing Career and Family, UW Graduate School, November 2005

Panelist for National UW-ADVANCE Summer Leadership Workshop for Department Chairs on Career Choices, Strategies for Facilitating Transitions in Faculty Careers: "Family-Friendly" Policies, July 2005

Panelist for Seminar on Careers, Academia, and Children, Center for Workforce Development, January 2004

Professional society and other service

2010 ATC-58 Development of Fragility Functions for Slender Concrete Walls
2010 ATC-58 Development of Fragility Functions for Steel Braced Frames
2006-present Member of ASCE-41 Ad Hoc Committee for the Development and Verification of Seismic Evaluation Procedures for Older RC Structures

2002-present Member of American Concrete Institute (ACI) Committee 352, Joint and Connections for Monolithic Construction

2000-2003 Member of Steering Committee for 2003 Structures Congress

2000-present Chair of ACI Subcommittee 341-C, Retrofit of Concrete Bridges

1999-present Member of American Concrete Institute Committee 341, Earthquake-Resistant Concrete Bridges

1999-present Member of American Concrete Institute Committee 374, Performance-Based Seismic Design of Concrete Buildings.

Community service

International, national or governmental service

May 2005 NSF Review for National Earthquake Engineering Simulation (NEES), Civil and Mechanical Systems

June 2004 NSF Review Panel, Civil and Mechanical Systems

January 2000 NSF Review Panel, U.S.-Japan Earthquake Hazard Mitigation Program

All other service

2007 – 2008 Graduate Student Mentoring Program (Center for Workforce Development)

1999-2000 Faculty and Graduate Student Mentoring Program