



Curriculum Vitae  
**SANTIAGO PUJOL**

## **EDUCATION**

- B.S. in Civil Engineering      Universidad Nacional de Colombia      1991-1995
- M.S. in Civil Engineering      Purdue University, W. Lafayette      1996-1997
- Ph.D. in Civil Engineering      Purdue University, W. Lafayette      1998-2002

## **PROFESSIONAL EXPERIENCE**

- Project Engineer, Wiss, Janney, Elstner and Assoc. Inc.      2002-2005
- Assistant Professor of Civil Engineering, Purdue University,  
W. Lafayette, IN.      2005-2011
- Associate Professor of Civil Engineering, Purdue University,  
W. Lafayette, IN.      2011-2015
- Professor of Civil Engineering, Purdue University,      2015-2019  
W. Lafayette, IN.
- Professor, Civil Engineering, University of Canterbury,  
Christchurch, New Zealand      2020-Today

## **HONORS AND AWARDS**

- Ross Fellowship, Purdue University.
- AISC IDEAS2 Presidential Award of Excellence 2008.
- Edmund M. Burke Outstanding Professor Award, Purdue University, 2008.
- Roy and Myrna Wansik Teaching Award for Outstanding Teaching, Purdue University, 2009.
- Excellence in Research, Seed for Success Award, Purdue University, 2010.
- Walter L. Huber Civil Engineering Research Prize from the American Society of Civil Engineers, 2012.
- American Concrete Institute Fellow, 2012.
- Munson Teaching Award, Purdue University, 2013.
- Purdue University Faculty Scholar, 2015.
- Architectural Institute of Japan, Educational Award (to international team of college professors organizing The International Bridge Competition) 2015.
- Bravo Award, College of Engineering, Purdue University, 2015.
- Excellence in Research Award, Purdue University, 2015.

- Chester Paul Siess Award for Excellence in Structural Research, American Concrete Institute, 2015.
- Excellence in Research Award, Purdue University, 2017.
- Edmund M. Burke Outstanding Professor Award, Purdue University, 2018.
- Erskine Fellow, University of Canterbury, 2019.
- Arthur J. Boase Award, American Concrete Institute, 2023.

## PUBLICATIONS

1. Pujol, S., Ramirez, J. A., and Sozen, M. A. (1999). "Drift Capacity of Reinforced Concrete Columns Subjected to Cyclic Shear Reversals." *ACI Special Publication SP-187*, K. Krishnan, ed., ACI, Farmington Hills, Michigan.
2. Pujol, S., Ramirez, J. A., and Sarria, A. (2000). "Behavior of Low-Rise Reinforced Concrete Buildings. Coffee Zone - Colombia, January 1999 Earthquake." *Concrete International*, Vol. 22, No. 1.
3. Pujol, S., Sozen, M. A., and Ramirez, J. A. (2000). "Transverse Reinforcement for Columns of RC Frames to Resist Earthquakes." *ASCE Journal of Structural Engineering*, Vol. 126, No. 4.
4. Donmez, C., and Pujol, S. (2005). "Spatial Distribution of Damage Caused by the 1999 Earthquakes in Turkey." *Earthquake Spectra*, Vol. 21, No. 1.
5. Pujol, S., and Sozen, M. A. (2006). "Effect of Load Reversals on Dynamic Demand and Resistance of Reinforced Concrete Elements." *ACI Special Publication 236*.
6. Pujol, S., Sozen, M. A., and Ramirez, J. A. (2006). "Displacement-History Effects on the Drift Capacity of Reinforced Concrete Columns." *ACI Structural Journal*, Vol. 103, No. 2.
7. Griffiths, J., Irfanoglu, A., and Pujol, S. (2007). "Istanbul at the Threshold: An Evaluation of the Seismic Risk in Istanbul." *Earthquake Spectra*, Vol. 23, No. 1.
8. Chen, J., Pujol, S., Yau, D.K.Y., and Miao, D. (2009). "Integrated RFID and Sensor Networks for Structure Monitoring." *Wireless Networks and Mobile Communications Series*, Taylor and Francis, Nov. 2009.
9. Pujol, S., Smith-Pardo, J. P. (2009). "A New Perspective on The Effects of Abrupt Column Removal," *Engineering Structures*, Vol. 31, No. 4.
10. Chin, J. C., Rautenberg, J.M., Ma, C.Y.T., Pujol, S., and Yau, D.K.Y. (2009). "An Experimental Low-cost, Low-data-rate Rapid Structural Assessment Network," *IEEE Sensors Journal*, Vol. 9, No. 11.
11. Sozen, M., Pujol, S. (2010). "A Sensor for Confident Identification of Structural Damage in Reinforced Concrete Buildings," *Smart Structures and Systems*, Vol. 6, No. 3.
12. Bedirhanoglu, I., Ilki, A., Pujol, S., Kumbasar, N. (2010). "Behavior of Joints Built with Plain Bars and Low-Strength Concrete," *ACI Structural Journal*, Vol. 107, No. 3.
13. Pujol, S., Fick, D. (2010). "The Test of a Full-Scale Three-Story RC Structure with Masonry Infill Walls," *Engineering Structures*, Vol. 32, No. 10.
14. Pujol, S., Rautenberg, J., and Sozen, M. A. (2011). "Compressive Strength of Concrete in Nonprismatic Elements," *Concrete International*, Vol. 33, No. 9.
15. Obrien, P., Eberhard, M., Haraldsson, O., Irfanoglu, A., Lattanzi, D., Lauer, S., and Pujol, S. (2011). "Measures of the Seismic Vulnerability of Reinforced Concrete Buildings in Haiti," *Earthquake Spectra*, Vol. 27, No. S1.
16. Hacker, T., Eigenmann, R., Irfanoglu, A., Pujol, S., Rathje, E., Catlin, A.C. (2011). "The NEEShub Cyberinfrastructure for Earthquake Engineering," *IEEE Computing in Science and Engineering*, Vol. 13, No. 4.
17. Rautenberg, J., Pujol, S., Tavallali, H., Lepage, A. (2012). "Reconsidering the Use of High-Strength Reinforcement in Concrete Columns," *Engineering Structures*, Vol. 37, No. 4.
18. Lepage, A., Tavallali, H., Pujol, S., and Rautenberg, J. (2012). "High-Performance Steel Bars and Fibers as Concrete Reinforcement for Seismic-Resistant Frames", *Advances in Civil Engineering*, Vol. 2012, Article 450981.
19. Song, C., Pujol, S., Lepage, A. (2012). "The Collapse of the Alto Rio Building during the 27 February 2010 Maule, Chile, Earthquake," *Earthquake Spectra*, Vol. 28, No. S1.

20. Rautenberg, J., Pujol, S., Tavallali, H., and Lepage, A. (2013). "Drift Capacity of Concrete Columns Reinforced with High-Strength Steel", *ACI Structural Journal*, Vol. 110, No. 2.
21. Henkhaus, K., Pujol, S., Ramirez, J. A. (2013). "Axial Failure of Columns Damaged by Shear Reversals," *ASCE Journal of Structural Engineering*, Vol. 139, Special Issue: NEES 1.
22. Rautenberg, J., Pujol, S. (2013). "Numerical Estimates of the Seismic Response of Building Structures Reinforced with High-Strength Steel," *ACI Special Publication* 293.
23. Zhou, W., Zheng, W., Pujol, S. (2013). "Seismic Vulnerability of Reinforced Concrete Structures Affected by the 2008 Wenchuan Earthquake," *Bulletin of Earthquake Engineering*, Vol. 11, No. 6.
24. Lew, H. S., Bao, Y., Pujol, S., Sozen, M. (2013). "Experimental Study of RC Assemblies Under a Column Removal Scenario," *ACI Structural Journal*, Vol. 111, No. 4.
25. Browning, J., Pujol, S., Ramirez, J., (2013). "NEEShub Databases - Quick Access to Concrete Data," *Concrete International*, Vol. 35, No. 4.
26. Pujol, S., Nelson, M., Smith-Pardo, J. P., (2013). "Virtual Velocity: Connecting the concepts of Kinematics and Virtual Work," *Engineering Structures*, Vol. 56.
27. Tavallali, H., Lepage, A., Rautenberg, J., and Pujol, S. (2014). "Concrete Beams Reinforced with High-Strength Steel Subjected to Displacement Reversals," *ACI Structural Journal*, Vol. 111, No. 5.
28. Hardisty, J.N., Villalobos, E., Richter, B., Pujol, S., (2015). "Seismic Response of Walls with Unconfined Lap Splices," *Concrete International*, Vol. 37, No. 1.
29. Laughery, L. Pujol, S. (2015). "Compressive Strength of Unreinforced Struts." *ACI Structural Journal*. Vol. 112, No. 5.
30. Wang, Y., Pujol, S., Al-Washali, H., Suzuki, K., Maeda, M., Takahashi, S., Ichinose, T. (2016). "On the Seismic Response of the Building of the Department of Civil Engineering and Architecture at Tohoku University," *Earthquake Spectra*, Vol. 32, No. 1.
31. Pujol, S., Hanai N., Ichinose, T., and Sozen, M. (2016). "Using the Mohr-Coulomb Criterion to Estimate Shear Strength of RC Columns." *ACI Structural Journal*. Vol. 113, No. 3.
32. Villalobos, E., Pujol, S., Moehle, J. (2016). "Panel Zones in Structural Walls." *ACI Special Publication* 311.
33. Villalobos, E., Escolano, D., Ramirez, A., Pujol, S. (2016). "Seismic Response of Reinforced Concrete Walls with Lap Splices." *Bulletin of Earthquake Engineering*. November 2016.
34. Pujol, S., Shah, P., Browning, J., Kreger, M., Garcia, L., and McCabe, S. (2016). "Guidelines for Preliminary Evaluation of Existing RC Buildings," *Nepal Engineer's Association Technical Journal*, XLIII (1).
35. Shah, P., Pujol, S., Kreger, M., McCabe, S., Irfanoglu, A. (2017). "2015 Nepal Earthquake, Damage Assessment Survey." *Concrete International*. Vol. 39, No. 3.
36. Catlin, A.C., Hewa Nadungodage, C., Pujol, S., Laughery, L., Sim, C., Puranam, A., Bejarano, A. (2017). "A Cyber Platform for Sharing Scientific Research Data at DataCenterHub." *IEEE Computing in Science and Engineering*.
37. Daluga, D., McCain, K., Murray, M., Pujol, S. (2018). "Effect of Geometric Scaling on Shear Strength of Reinforced Concrete Beams without Stirrups." *ACI Structural Journal*. Vol. 115, No. 1.
38. Benavent-Climent, A., Ramírez-Márquez, A., Pujol, S. (2018). "Seismic Strengthening of Low-Rise Reinforced Concrete Frame Structures with Masonry Infill Walls: Shaking-Table Test," *Engineering Structures*, Vol. 165.
39. Sim, C.W., Smith, J., Villalobos, E., Kreger, M., Rojas, P., Pujol, S., (2018) "April 16, 2016 Ecuador Earthquake Damage Assessment Survey," *Earthquake Spectra*, Vol. 34, No. 3.
40. Puranam, A., Wang, Y., Pujol, S. (2018). "Estimating Drift Capacity of Reinforced Concrete Structural Walls," *ACI Structural Journal*, Vol. 115, No. 6.
41. Klaboe, K., Pujol, S., Laughery, L. (2018). "The Seismic Response of Rocking Blocks," *Earthquake Spectra*, Vol. 34, No. 3.
42. Suzuki, T., Laughery, L., Pujol, S. (2018). "Learning from the Japanese Experience with High-Strength Longitudinal Reinforcement," *Concrete International*, Vol. 40, No. 9.

43. Penava, D., Guljas, I., Laughery, L., Pujol, S. (2018). "Dynamic Tests of a Large-Scale RC Structure with Masonry Infill Walls," *Journal of Earthquake Engineering*, Vol. 24, No. 1.
44. Puranam, A., Pujol, S. (2019). "Investigation of Corner Column Axial Failure In a 14-Story RC Building," *ACI Structural Journal*, Vol. 116, No. 1.
45. Laughery, L., Pujol, S. (2019). "Drift Demands on Reinforced Concrete Structures Subjected to Strong Ground Motions," *ACI Journal*, Vol. 116, No. 1.
46. Puranam, A., Pujol, S., Chiou, T.C., Hwang, S.J., (2019). "Evaluation of Seismic Vulnerability Screening Indices using Data from the Taiwan Earthquake of 06 February 2016," *Bulletin of Earthquake Engineering*, Vol. 17.
47. Takahashi, S., Hotta, K., Hirose, M., Ichinose, T., Maeda, M., Laughery, L., and Pujol, S. (2019). "Seismic Damage of A Building Caused by Post-Installed Anchors Intended to Increase Shear Strength of Structural Wall," *Journal of Advanced Concrete Technology*, Vol 17, No. 3.
48. Yeum, C.M., Dyke, S.J., Benes, B., Hacker, T., Ramirez, J., Lund, A. and Pujol, S. (2019). Postevent Reconnaissance Image Documentation Using Automated Classification. *Journal of Performance of Constructed Facilities*, Vol. 33, No. 1.
49. Puranam, A., Pujol, S. (2019). "Reinforcement Limits for RC Elements with High-Strength Steel," *ACI Structural Journal*, Vol. 116, No. 5.
50. Usta, M., Pujol, S., et al. (2019). "Shear Strength of Structural Walls Subjected to Load Cycles," *Concrete International*, Vol. 41, No. 5.
51. Pujol, S.; Kreger, M.E.; Monical, J.D.; and Schultz, A.E. (2019). "Investigation of the Collapse of the Chirajara Bridge," Vol. 41, No. 6.
52. Ardila, O., Pujol, S. (2019). "Failure Mechanisms of Small-Scale Reinforced Concrete Beams Impacted by Soft Missiles," *Structures*, Elsevier, Vol. 20.
53. Pujol, S., Rodriguez, M. (2019). "Evaluación Del Comportamiento De Muros No Estructurales En Edificios De La Ciudad De México En El Terremoto Del 19 De Septiembre 2017," *Revista de Ingenieria Sismica*. No. 101. DOI: 10.18867/RIS.101.529. In Spanish.
54. Pujol, S., Laughery, L., Puranam, A., Hesam, P., Cheng, L.H., Lund, A., Irfanoglu, A. (2020). "Evaluation of Seismic Vulnerability Indices for Low-Rise Reinforced Concrete Buildings Including Data from the 6 February 2016 Taiwan Earthquake," *Journal of Disaster Research*, Vol. 15, No. 1.
55. Lund, A., Puranam, A., Whelchel, R., Pujol, S. (2020). "Serviceability of Elements with High-Strength Steel Reinforcement," *Concrete International*, Vol. 42, No. 9.
56. Alcocer, S., Pujol S., et al. (2020). "Observations about the seismic response of RC buildings in Mexico City," *Earthquake Spectra*, Vol. 36, No. 2 suppl.
57. Wang, Y., and Pujol, S. (2020). "Effects of Longitudinal Reinforcement Discontinuities on The Seismic Response of Structural Walls." *Bulletin of Earthquake Engineering*, Vol. 18, No. 15.
58. Opabola, T., Elwood, K., Pujol, S. (2020), "Influence of Biaxial Latera Loading on Seismic Response of Reinforced Concrete Columns," *ACI Journal*, Vol. 117, No. 6.
59. Ardila, O., Pujol, S. (2021). "Initial Shear Demand in Beams and One-Way Slabs Subjected to Blast Load," *Structures*, Vol. 32.
60. Pujol, S., Fick, D., Fargier-Gabaldon, (2021). "Test of A 90-Ft Post-Tensioned Concrete Girder With Unbonded Tendons," *ACI Journal*, Vol. 118, No. 5.
61. Fenwick R. and Pujol S. (2021). "Singly Reinforced Walls." *SESOC Journal* 34(1)
62. Shrestha, S., Carrillo, J., Sezen, H., Pujol, S. (2022). "Shear Strength of Shear-Controlled Columns under Cyclic Loading," *ACI Journal*, Vol. 119, No. 3.
63. Shrestha S. and Pujol S. (2022). "Drift Capacity of Reinforced Concrete Columns," *ACI Journal*, S-2022-030.

64. Pollalis, W., Shah, P., Zhang, Y., Mankame, N., Zavattieri, P., Pujol, S. (2023). "Dynamic Response of a Single-Degree-of-Freedom System Containing Phase Transforming Cellular Materials," *Engineering Structures*, Vol 275, Part A.
65. Rincon, J.D., Skillen, K.C., Pujol, S., Chen, Y.M., Puranam, A.Y., and Hwang, S.J. (2023). "Active Confinement of RC Columns with External Post-tensioned Clamps," *ACI Special Publication*, 358.
66. Kerby, C., Monical, J., Pujol, S. (2024). "Earthquake Response of Reinforced Concrete Frames with Infill and Active External Confinement," *Earthquake Spectra*, Vol. 40, No. 1.
67. Pujol S., Bedirhanoglu I., Donmez C. et al. (2024). "Quantitative Evaluation of the Damage to RC Buildings Caused by the 2023 Southeast Turkey Earthquake Sequence," *Earthquake Spectra*, Vol. 40, No. 1.
68. Rincon J., Pujol S. (2023). "Shear Strength of RC Columns with External Post-Tensioned Clamps," *ACI Structural Journal*, DOI: 10.14359/51740248.

#### CONFERENCE OR SYMPOSIUM PAPERS AND PRESENTATIONS

69. Pujol, S., Ramirez, J. A., and Sozen, M. A. (1998). "Drift Capacity of Reinforced Concrete Columns Subjected to Cyclic Shear Reversals." Proceedings of the NEHRP Conference and Workshop on Research on the Northridge, California Earthquake of January 17, 1994, Los Angeles, California, CUREE, Richmond, California, 8 p.
70. Pujol, S., Sozen, M. A., and Ramirez, J. A. (2001). "Transverse Reinforcement Requirements for Reinforced Concrete Columns Subjected to Inelastic Shear Reversals: A summary of Two Different Approaches." Modeling of Inelastic Behavior of RC Structures under Seismic Loads, P. Benson Shing and Tada-Aki Tanabe, ed., ASCE, Reston, Virginia, pp. 536-545.
71. Pujol, S., Sozen, M. A., and Ramirez, J. A. (2002). "Drift Capacity of RC Columns Subjected to Shear Reversals." Seventh U.S. National Conference on Earthquake Engineering, (7NCEE), Urban Earthquake Risk, July 21-25, 2002, Boston, Massachusetts, EERI, Oakland, California, 11p.
72. Pujol, S. (2002). "Displacement-History Effects on the Drift Capacity of Reinforced Concrete Columns." The Fourth U.S.-Japan Workshop on Performance-Based Engineering Methodology for Reinforced Concrete Building Structures, 22-24 October 2002, Toba, Japan, PEER Report 2002/21, University of California, Berkeley, California, pp. 265-279.
73. Sozen, M. A., Pujol, S., and Ramirez, J. A. (2003). "The Theory of Almost Nothing," The Fifth U.S.-Japan Workshop on Performance-Based Engineering Methodology for Reinforced Concrete Building Structures, 10-11 September 2003, Hakone, Japan, PEER Report 2003/11, University of California, Berkeley, California, pp. 17-32.
74. Pujol, S., Fierro, E., and Freeman, S. (2004). "Characteristics of Response Spectra for Records from South America." 13th World Conference in Earthquake Engineering. August 1-6, 2004, Vancouver, Canada. Paper No. 1657, 17 p.
75. Garcia, L. E., Perez, A., Pujol, S., Ramirez, J. A., and Sozen, M. A. (2005). "Effects of the Terrorist Attack on the El Nogal Building Bogota, Colombia," 2005 IABSE Symposium, Lisbon, 8p.
76. Henkhaus, K., Pujol, S., Ramirez, J. (2006). "Response to Permanent Loads of RC Columns Damaged By Transient Loads." Second NEES-EDEFENSE Workshop on Collapse Simulation of Reinforced Concrete Building Structures, Japan, pp. 281-296.
77. Krahn, T., Pujol, S. (2007). "A Simple Method for Determining the Forces Exerted on a Structural Element by an Impacting Liquid Body," International Symposium on Interaction of the Effects of Munitions with Structures (ISIEMS) 12.1, Orlando, Florida, 11p.
78. Hanai, N. Pujol, S. Sozen, M. A. Ichinose, T. (2007). "Estimating the Shear Strength of Reinforced Concrete Columns Using the Mohr-Coulomb Failure Criterion," First International Workshop on Performance, Protection, and Strengthening of Structures under Extreme Loading (PROTECT), Whistler, Canada, pp. 97-106.
79. Takamura, M., Hanai, N., Pujol, S., Ichinose, T. (2008). "Mohr-Coulomb Failure Criterion to Estimate Shear Strength and Deformation Capacity of RC Columns," Proceedings of The Architectural Institute of Japan, Tokai, Vol. 46, Feb. 2008, pp. 289-292. [In Japanese]

80. Chin, J. C., Rautenberg, J. M., Ma, C.Y.T., Pujol, S., and Yau D.K.Y. (2008). "A Low-cost, Low-data-rate Rapid Structural Assessment Network: Design, Implementation, and Experimentation," Fifth IEEE International Conference on Mobile and Ad Hoc Sensor Systems, Atlanta, pp. 173-182.
81. Pujol, S., Benavent-Climent, A., Rodriguez, M. E., and Smith-Pardo, J. P. (2008). "Masonry Infill Walls: An Effective Alternative For Seismic Strengthening Of Low-Rise Reinforced Concrete Building Structures," 14<sup>th</sup> World Conference on Earthquake Engineering, Beijing, China, 8p.
82. Lepage, A., Tavallali, H., Pujol, S., and Rautenberg, J. (2008). "Towards Earthquake-Resistant Concrete Structures with Ultrahigh-Strength Steel Reinforcement," 14<sup>th</sup> World Conference on Earthquake Engineering, Beijing, China, 8p.
83. Henkhaus, K., Pujol, S., Ramirez, J. (2009). "Simultaneous Shear and Axial Failures of Reinforced Concrete Columns," Conference on Improving the Seismic Performance of Existing Buildings and Other Structures, Applied Technology Council (ATC) and the Structural Engineering Institute of the American Society of Civil Engineering (SEI/ASCE). San Francisco, pp. 536-546.
84. Marubashi, N., Pujol, S., Ichinose, T., Nielsen, M. P. (2009). "A Method to Evaluate Seismic Demands of Low-Rise RC Buildings," Keynote Presentation, Proceedings of The Third International Conference on Concrete and Development, Teheran, pp. 3-13.
85. Henkhaus, K., Pujol, S., Ramirez, J. (2010). "Axial Failure of Reinforced Concrete Columns," 9<sup>th</sup> U.S. National and 10<sup>th</sup> Canadian Conference on Earthquake Engineering, Toronto, 3p.
86. Rautenberg, J., Pujol, S., Tavallali, H., and Lepage, A. (2010). "Behavior of Concrete Elements Reinforced with High-Strength Steel Bars," 9<sup>th</sup> U.S. National and 10<sup>th</sup> Canadian Conference on Earthquake Engineering, Toronto, 9 p.
87. Hortacsu, A., Pujol, S., Ramirez, J. (2011). "Development of a Database for Ground Motion and Building Performance Data from the 2010 Maule Earthquake in Chile," SEAOC Convention, Las Vegas, NV.
88. Tavallali, H., Lepage, A., Rautenberg, J., and Pujol, S. (2011). "Drift Limits of Concrete Frame Members Reinforced with High-Performance Steel Bars and Fibers," 6th Workshop on High Performance Fiber Reinforced Cement Composites, Ann Arbor, Michigan, June 20-22, 8 p.
89. Tavallali, H., Lepage, A., Rautenberg, J., and Pujol, S. (2011). "Cyclic Response of Concrete Frame Members Reinforced with Ultrahigh Strength Steel," ASCE/SEI 2011 Structures Congress, Las Vegas, Nevada, April 14-16, 11 p.
90. Escolano-Magarit, D., Klenke, A., Pujol, S., Benavent-Climent, A. (2012). "Failure Mechanism of Reinforced Concrete Structural Walls with and without Confinement," 15th World Conference in Earthquake Engineering, Lisbon.
91. Ramirez-Marquez, A., Benavent-Climents, A., Oliver-Saiz, E., Pujol, S. (2012). "Low-Cost Retrofitting Solutions For RC Frames Using Masonry Infill Panels," 15th World Conference in Earthquake Engineering, Lisbon.
92. Hortacsu, A., Pujol, S., Catlin, A. C. (2012). "Development of a Database for Ground Motion and Building Performance Data," 15th World Conference in Earthquake Engineering, Lisbon.
93. Villanova, I., Nagaya, A., Maeda, M., Pujol, S., Takahashi, S., Ichinose T. (2012). "Damage to Eight-Story RC Buildings Retrofitted to Have Base Shear Coefficient of 0.65," Great East Japan Earthquake Symposium, JAEE, Tokyo, Japan, March 3-4, 2012.
94. Kato, Y., Nagaya, A., Hotta, K., Wang, Y., Takahashi, S., Maeda, M., Pujol, S., Ichinose, T. (2013). "Damage of Six-Story RC Building with Coupling Beams Having Aspect Ratios Larger Than 2.0," 10th International Conference on Urban Earthquake Engineering March 1-2, 2013, Tokyo Institute of Technology, Tokyo, Japan.
95. Nagaya, A., Hotta, K., Kato, Y., Takahashi, S., Pujol, S., Maeda, M., Ichinose, Y. (2013). "Damage of RC Building with Coupled Shear Walls Due to The 2011 Great East Japan Earthquake." 10th International Conference on Urban Earthquake Engineering March 1-2, 2013, Tokyo Institute of Technology, Tokyo, Japan.

96. Suzuki, A., Hamood, A., Maeda, M., Wang, Y., Pujol, S. Ichinose, T. (2013). "Performance of The Building of The Faculty of Engineering at Tohoku University During the Great East Japan Earthquake of 2011." 10th International Conference on Urban Earthquake Engineering March 1-2, 2013, Tokyo Institute of Technology, Tokyo, Japan.
97. Villalobos, E., Pujol, S., (2014). "Seismic Response of Reinforced Concrete Walls with Lap Splices," 10<sup>th</sup> U.S. National Conference on Earthquake Engineering, Anchorage, Alaska.
98. Wang Y., Pujol S., (2014). "The Capacity Spectrum Method: Evaluation against the measured response of a nine-story structure." 10th U.S. National Conference on Earthquake Engineering, Anchorage, Alaska.
99. Laughery, L., Pujol, S. (2015). "Shake-Table Tests of High-Strength Steel-Reinforced Concrete Frames," ACI Convention, Kansas City.
100. Puranam, A., Pujol, S. (2015). "Use of High-Strength Steel Reinforcement in Reinforced Concrete Elements for Gravity Applications," ACI Convention, Kansas City.
101. Hardisty, J.N., Moehle, J.P., Paret, T., Pujol, S. (2016). "Seismic Performance of A Structural Wall Building With Geometric and Reinforcement Discontinuities," 16 WCEE, Chile.
102. Puranam, A., Pujol, S. (2016). "Minimum Flexural Reinforcement In Reinforced Concrete Walls," 16 WCEE, Chile.
103. Laughery, L., Pujol, S., (2016). "Seismic Response Of High-Strength Steel Reinforced Concrete Frames," 16 WCEE, Chile.
104. Yeum, C.M., Dyke, S. J. , Ramirez, J., Hacker, T., Pujol, S., and Sim, CW. (2016). "Structured Annotation of Semantic Contents on Images from Earthquake Reconnaissance," 16 WCEE, Chile.
105. Gopavarapu P, Pouchard LC, Pujol S., (2016). "Increasing Datasets Discoverability in an Engineering Data Platform using Keyword Extraction," Proceedings of the ACM/IEEE Joint Conference on Digital Libraries.
106. Laughery, L., Pujol, S., Suzuki, T. (2017). "Learning from the Japanese Experience with High-Strength Longitudinal Reinforcement," ACI Convention, Detroit.
107. Puranam, A., Pujol, S. (2017). "Performance of Low-Rise Reinforced Concrete Buildings in the 2016 Taiwan Earthquake," ACI Convention, Detroit.
108. Puranam, A., Pujol, S., (2017). "Performance of a 14-Story Reinforced Concrete Building in the 2016 Taiwan Earthquake," ACI Convention, Detroit.
109. Yeum, C.M., Dyke, S.J., Benes, B., Hacker, T., Ramirez, J., Lund, A., Pujol S., (2017). "Rapid, Automated Post-Event Image Classification and Documentation," International Conference on Advances in Experimental Structural Engineering.
110. Shah, P., Skillen, K., Laughery, L., Pujol, S., and Irfanoglu, A. (2018). "Dynamic Tests of Stone Masonry Walls with Earth Mortar for Improved Construction in Rural Nepal," 11 NCEE, Los Angeles, CA.
111. Pujol, S., Irfanoglu, A., Laughery, L., Sozen, M., Gulkan P., Heaton, T., (2018). "A Potential Problem in Estimating the Drift Response of High-Rise Buildings," 11 NCEE, Los Angeles, CA.
112. Haselton, C. B., Deierlein, G., Bono, S., Ghannoum, W., Hachem, M., Malley, J., Hooper, J., Lignos, D., Mazzoni, S., Pujol, S., et al., (2018). "Guidelines on Nonlinear Dynamic Analysis for Performance-Based Seismic Design of Steel and Concrete Moment Frames," 11 NCEE, Los Angeles, CA.
113. Song, C., Pujol, S., (2018), Collapse Assessment of Vulnerable Reinforced Concrete Structures Under Earthquakes," 11 NCEE, Los Angeles, CA.
114. Chiou, T.C., Hwang, S.J., Pujol, S., (2018), "Comparison of Seismic Vulnerable Indices by Building Data of The 2016 Taiwan Earthquake," 11 NCEE, Los Angeles, CA.
115. Yeum, C.M., Dyke, S.J., Benes, B., Hacker, T., Ramirez, J., Lund, A., Sim, C., Pujol, S., (2018), "Automating Visual Data Processing to Support Post-Earthquake Reconnaissance," 11 NCEE, Los Angeles, CA.
116. Balbirnie, K., Chandramohan, R., Pujol, S., Wright, J., (2021). "Identifying Vulnerable Reinforced Concrete Buildings in Wellington Using a Simple Assessment Methodology," Proceedings of the 2021 New Zealand Society for Earthquake Engineering Annual Technical Conference.

117. Elwood, K., Pujol, S., Abbie, L., Murray, P., Mehdi, S., Shah, P., Brooke, N., (2021). "ATC-145: Influence of Prior Shaking on Earthquake Response and Repair Requirements for Structures and Elements," Proceedings of the 2021 New Zealand Society for Earthquake Engineering Annual Technical Conference.
118. Elwood, K., Pujol, S., Abbie, L., Murray, P., Mehdi, S., Shah, P., Brooke, N., (2021). "ATC-145: Framework for Assessing the Extent of Repair Required for Earthquake-Damaged Concrete Moment Frames," SESOC Conference, Hamilton, New Zealand.
119. Monical, J., Skillen, K., Shah, P., Pujol, S., (2021). "Repairing and Strengthening Non-Ductile Reinforced Concrete Columns to Resist Seismic Demands," 17WCEE, Sendai.
120. Pujol, S., Irfanoglu, A., (2021). "Forty Years after Mete Sozen's First Pitch for Drift-Driven Design," 17WCEE, Sendai. Special Session.
121. Pujol, S., Shah, P., and Kreger, M., (2021). "The Origin of Drift-Driven Design," 17WCEE, Sendai. Special Session.
122. Puranam, A., Yang, Y.H., Pujol, S., (2021). "Seismic Drift Demands in Concrete Structures Reinforced with High-Strength Steel," WCEE 17, Sendai. Special Session.
123. Dawson M, Rogers J, Pujol S, Skillen K. (2022). "Code Requirements for Column Confinement with a View on Drift," New Zealand Society for Earthquake Engineering, Annual Technical Conference.
124. Pollalis W, Pujol S. (2022). "A Method to Estimate the Drift Capacity of Reinforced Concrete Walls with Lap Splices at their Bases," Bond in Concrete, Stuttgart.

## BOOKS

125. Sozen, M., Ichinose, T., Pujol, S. (2014). *Principles of Reinforced Concrete Design*. CRC Press.
126. Pujol, S., Puranam, A., Irfanoglu, A. (2021). *Drift-Driven Design: Mete Sozen's Works on Earthquake Engineering*. CRC Press.

## OTHER PUBLICATIONS

127. Ramirez, J., Pujol, S., et al. (1999). "The Tehuacan, 6/15/1999, Earthquake," EERI Special Earthquake Report.
128. Pujol, S., and Ramirez, J. (2000). Discussion on "Proposed Modifications to ACI 318-95 Tension Development Lap Splice for High Strength Concrete" by A. Azizinamini et al., Disc. 96-S101, *ACI Structural Journal*, Vol. 97, No. 5, pp. 790-791.
129. Pujol, S., and Sozen, M. A. (2000). Discussion on "Seismic Performance of Rectangular Bridge Columns with Moderate Confinement" by N. Wehbe et al., Disc. 96-S27, *ACI Structural Journal*, Vol. 97, No. 1, pp. 208-210.
130. Sozen, M. A., and Pujol, S. (2006). "Load-Testing of A Composite Reinforced Concrete Structure Incorporating Prestressed Filigree Slabs: Test #2," A Report to Ysrael A. Seinuk P. C. Consulting Engineers, Purdue University, October 2006, 20 p.
131. Sozen, M. A., and Pujol, S. (2006). "Load-Testing of A Composite Reinforced Concrete Structure Incorporating Prestressed Filigree Slabs," A Report to Ysrael A. Seinuk P. C. Consulting Engineers, Purdue University, October 2006, 36 p.
132. García, L., Pujol, S., Ramírez, J., Sozen M. (2006). "Structural Effects of the February 7, 2003, Bombing of the El Nogal Building in Bogotá, Colombia," a Report to The National Science Foundation, Purdue University, January 2006. 99 p.
133. Kayen, R., Pujol, S., et al. (2007). "Preliminary Observations on the Niigata-Chuetsu Oki, Japan, Earthquake of July 16, 2007," EERI Special Earthquake Report, [http://www.eeri.org/lfe/pdf/japan\\_niigata\\_chuetsu\\_oki\\_eeri\\_preliminary\\_report.pdf](http://www.eeri.org/lfe/pdf/japan_niigata_chuetsu_oki_eeri_preliminary_report.pdf)

134. Kayen, R., Pujol, S., et al. (2007). "Preliminary Observations on the Niigata-Chuetsu Oki, Japan, Earthquake of July 16, 2007," EERI and GEER, [http://www.eeri.org/lfe/japan\\_sea.html](http://www.eeri.org/lfe/japan_sea.html).
135. Pujol, S., et al. (2007). "The Pisco, Peru, Earthquake of August 15, 2007," EERI Special Earthquake Report, [http://www.eeri.org/lfe/pdf/peru\\_pisco\\_eeri\\_preliminary\\_reconnaissance.pdf](http://www.eeri.org/lfe/pdf/peru_pisco_eeri_preliminary_reconnaissance.pdf)
136. Pujol, S. (2009). Discussion on "Reinforced Concrete Slab Shear Prediction Competition: Entries and Discussion" by T. Jaeger and P. Marti, ACI Structural Journal, Vol. 107, No. 2, pp. 248-251.
137. Pujol, S., Richter, B. (2012). Discussion on "Experimental Investigation on Compressive Behavior of Bottle-Shaped Struts" by G. Campione and G. Minafo, ACI Structural Journal, Vol. 109, No. 2, pp. 268-270.
138. ATC145-1 (2020). "Resilient Repair Guide Source Report," Submitted to: Federal Emergency Management Agency (FEMA).
139. Pujol, S., Irfanoglu, A., Shah, P., Kreger, M., Stavridis, A., Bose, S., Wood, R., Liao, Y., Mosqueda, G., Hughes, P., Behrouzi, A., Benstead, L., Rosenblatt, W. (2018). "Ambient Vibration Recordings of School Buildings in Mexico City," Submitted to: Instituto Nacional de la Infraestructura Física Educativa (INIFED).
140. Shah, P., Laughery, L., Pujol, S., and Irfanoglu, A. (2018). "Investigation of the Dynamic Response of Stone Masonry Walls with Fiber-Reinforced Mud Mortar," Submitted to: Catholic Relief Services (CRS).
141. McElmury M, Nickell D, Pujol S, Reckers R. (2023). "Designing for the Unforeseeable," Structure Magazine. July.

#### INVITED PRESENTATIONS

142. "Istanbul at the Threshold: An Evaluation of the Seismic Risk in Istanbul," The University of Michigan at Ann Arbor, 2007.
143. "Rotational Capacity of Rocking Concrete Blocks," Nagoya Institute of Technology, Japan, July 2007.
144. "Lectures on Displacement-Based Design of Structures to Resist Earthquakes," Universidad del Valle, Colombia, July, 2008.
145. "The 2010 Chile Earthquake - Preliminary Observations on Earthquake-Resistant Construction in Viña del Mar," The University of Michigan at Ann Arbor, 2010.
146. "A personal View on the Educational System in the U.S." Escuela Superior de Arquitectura, Universidad de Granada, Spain, September 2010.
147. "The Seismic Response of RC Buildings in Viña del Mar, Chile" Escuela Superior de Arquitectura, Universidad de Granada, Spain, September 2010.
148. "The Collapse of the Alto Rio Building," Universidad de Los Andes, Bogota, Colombia, 2011.
149. "The Performance of RC Buildings with Structural Walls" Tohoku University, Japan, March 2013.
150. "Panel Zones in Structural Walls" U.C. Berkeley, April 2014.
151. "Learning from Disasters," EPFL, Lausanne, Switzerland, 2016.
152. "On the Seismic Response of the Building of the Department of Civil Engineering and Architecture at Tohoku University," University of Wisconsin at Madison, 2016.
153. "Learning from the Taiwan Earthquake of 6 February 2016." University of Illinois at Urbana Champaign, 2016.
154. "Chronicle of a Failure Foretold" Josip Juraj Strossmayer University of Osijek, Croatia, 2017.
155. "Recommended Thicknesses for Structural Walls to Resist Earthquake Demands in Colombia," VIII Congress on Earthquake Engineering, Barranquilla, Colombia, 2017.
156. "The Challenge Ahead: What to Fix, and How to Fix it?" Workshop on the Anniversary of the 2016 Taiwan Earthquake, NCREC, Taiwan, 2017.
157. "A Circular Travel through Time: Changes in Seismic Design through a Century" ASCE Structural Engineering Institute Congress, April 2018.

158. "Recent Failures," V Simposio Internacional Sobre Diseño y Construcción de Puentes, UIS, Bucaramanga, 2018.
159. "Behavior of RC Structural Walls with Lap Splices," Chilean Building Code Committee, 2021.
160. "Behavior of RC Structural Walls with Lap Splices," Taiwanese Code Committee, 2021.
161. "Shear in the Times of COVID," ACI Colombia, 2021.
162. "Shear Demands in RC Structural Walls," The Chilean Association of Seismology and Earthquake Engineering, 2021.
163. "The Hassan Index," Sociedad de Ingenieros de Bolivia, La Paz, Bolivia, 2021.
164. "Shear Demands in Wall Buildings," Association of Seismology and Earthquake Engineering, Chile, 2021.
165. "The Future of Concrete," Concrete NZ, Rotorua, (2022).
166. "Quantitative Lessons from the Earthquake Sequence that Affected South-East Turkey in 2023," Association of Indonesian Construction Experts (HAKI), Jakarta, (2023).

## OTHER ACTIVITIES

- Chair of ACI 133 Committee for Disaster Reconnaissance
- Deputy Head of Department, University of Canterbury
- Acting Head of Department, University of Canterbury
- Advised Building Code committees in Taiwan and Chile
- Academic Coordinator of Structural Laboratories at U. Canterbury
- Founder of datacenterhub.org
- Associate Editor for Earthquake Spectra.
- Academic Director of Research Computing at Purdue's IT department (ITAP).
- Coordinator of Structures Area, Purdue Lyles School of Civil Engineering.
- Voting Member of American Concrete Institute Committees 314, 445, 445B (chair), 318R, 318F, 318W
- Reconnaissance work in: Colombia (1999), Mexico (1999), Turkey (2000), Japan (2007, 2008, 2011), Peru (2007), China (2008), Haiti (2010), Chile (2010), and Nepal (2015), Taiwan (2016), Mexico (2017), Turkey (2023).
- Teaching of short courses at: Universidad del Valle, Colombia, Universidad del Norte, Colombia, Escuela de Ingeniería, Bogota, Colombia, Universidad Nueva Granada, Bogota, Colombia, INTEC, Dominican Republic..
- Testing for Bechtel Corporation.
- Advisor for EERI Student chapter at Purdue.
- Teaching of courses on Statics, Dynamics, Earthquake Engineering, Reinforced Concrete (design and behavior), Experimental Methods in Civil Engineering.
- Collaborating (through student exchange and joint research) with Nagoya Institute of Technology, Tohoku University, Universidad Autonoma de Mexico, Josip Juraj Strossmayer University of Osijek, Universidad Politecnica de Madrid, NCREC, Taiwan.
- Investigation of the Collapse of the Chirajara Bridge, Bogota, Colombia.

## CONSULTING

- Wiss Janney Elstner (Northbrook, Minneapolis, San Francisco)
- Proyectos y Diseños, P&D, Bogotá.
- Seguros Bolivar (Insurers, Colombia)
- First Energy Corporation (Ohio)
- Bechtel Co.
- Rich & Henderson, P.C.
- American Concrete Institute

- Praxair
- NVent (formerly ERICO and/or LENTON)
- Mid-State Filigree Systems of New Jersey
- Applied Technology Council
- WSP, Houston TX
- Patricio Bonelli & Asociados (Chile)
- Concrete Reinforcing Steel Institute (CRSI, Chicago)
- TGRWA Structural Engineers (Chicago)
- EXP Engineering, Architecture, Design and Consulting (Seattle, Chicago)
- Ministry of Transportation, Colombia
- INGETEC, Colombia
- Hilti

#### PH.D. STUDENTS

Oscar Ardila, Kurt Henkhaus, Jeffrey Rautenberg, Seyed Hamid Changiz, Enrique Villalobos, Ying Wang, Cheng Song, Lucas Laughery, Aishwarya Puranam, Kinsey Skillen, Prateek Shah, William Pollalis, Jonathan Monical, Julian Rincon, Charles Kerby.

#### SABBATICALS AND OTHER LEAVES

2007 (Summer) Nagoya Institute of Technology (Host: Toshikatsu Ichinose)

2008 (Summer) Nagoya Institute of Technology (Host: Toshikatsu Ichinose)

2014 (6 months) University of California at Berkeley (Host: Jack Moehle)

#### RESEARCH PROJECTS

##### USA

1. Agency/Title of Grant: Purdue Research Foundation / A Study on High-Speed Impact  
Duration of Funding (Dates): 06/06 – 05/07  
Total amount of award: \$15,292
2. Agency/Title of Grant: Wausau Insurance / An Investigation on The Collapse of The Tropicana Casino  
Duration of Funding (Dates): 08/06 – 06/07  
Total amount of award: \$118,505
3. Agency/Title of Grant: XL Insurance / Evaluation of The Strength of Post-Tensioned Reinforced Concrete Girders  
Duration of Funding (Dates): 09/07 – 12/07  
Total amount of award: \$133,850
4. Agency/Title of Grant: NSF/Toward Understanding the Effects of the Wenchuan Megaquake of 12 May 2008; Guangzhou, People's Republic of China; February 2009  
Duration of Funding (Dates): 01 Jan 2009 - 31 Dec 2009  
Total amount of award: \$38,000  
Co-Investigators: M. Sozen

5. Agency/Title of Grant: Concrete Reinforcing Steel Institute (CRSI) / The Use of High-Strength Steel in Columns.  
Duration of Funding (Dates): Aug. 2009, May 2010  
Total amount of award: \$30,000
6. Agency/Title of Grant: NEESComm (Director: Julio Ramirez, CE) / Network for Earthquake Engineering Research  
Duration of Funding (Dates): Aug. 2009, Aug. 2014  
Total amount of award: \$105,000,000  
Co-Investigators: Julio Ramirez, Barbara Fossum, Rudolf Eigenmann, Tom Hacker, Saurabh Bagchi, Sean Brophy, Ayhan Irfanoglu.
7. Agency/Title of Grant: NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) / Collapse Potential of Reinforced Concrete Structures  
Duration of Funding (Dates): October 2009, June 2010.  
Total amount of award: \$101,700
8. Agency/Title of Grant: NSF/ RAPID: Collection of Field Data from Haiti for Calibration of Seismic Vulnerability Indices  
Duration of Funding (Dates): May 2010 to April 2011.  
Total amount of award: \$40,000  
Co-Investigators: Ayhan Irfanoglu.
9. Agency/Title of Grant: ERICO Inc., An Investigation on the Performance of Lap Splices in Shear Walls to Resist Cyclic Lateral Loads.  
Duration of Funding (Dates): June 2010, May 2011  
Total amount of award: \$62,000  
Co-Investigators: Mete Sozen.
10. Agency/Title of Grant: NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) / Cyber-Infrastructure for Ground Motion and Building Performance Data from the 2010 Chile Earthquake  
Duration of Funding (Dates): 01 January 2011, 31 December 2011.  
Total amount of award: \$76,000  
Co-Investigators: Ann Christine Catlin, Rosen Center for Advanced Computing.
11. Agency/Title of Grant: NSF/ RAPID: Investigation on the Performance of Buildings with Structural Walls in the Tohoku, Japan Earthquake of 2011  
Duration of Funding (Dates): August 2011 to July 2012.  
Total amount of award: \$49,000  
Co-Investigators: Mete Sozen.
12. Agency/Title of Grant: NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) / Cyber-Infrastructure for Ground Motion and Building Performance Data from the 2010 Chile Earthquake  
Duration of Funding (Dates): January 2012, May 2013.  
Total amount of award: \$25,000  
Co-Investigators: Ann Christine Catlin, Rosen Center for Advanced Computing.

13. Agency/Title of Grant: CONCRETE REINFORCING STEEL INSTITUTE (CRSI) / Lap Splices in Thin Elements.  
Duration of Funding (Dates): January 2012, December 2012  
Total amount of award: \$30,000
14. Agency/Title of Grant: FENOC/ Investigation on The Capacity of Lap Splices of No. 11 Reinforcing Bars.  
Duration of Funding (Dates): March 2012, December 2012  
Total amount of award: \$160,000  
Co-Investigators: Mete Sozen
15. Agency/Title of Grant: NSF, UC Berkeley / Implications of the Tests by Henkhaus and Matchulat.  
Duration of Funding (Dates): March 2013, December 2013  
Total amount of award: \$60,000
16. Agency/Title of Grant: NIST, ARA/ Disasters and Failures Studies.  
Duration of Funding (Dates): January 2013, January 2018.  
Total amount of award: \$376,000  
Co-Investigators: A. Catlin, Applied Research Associates, WJE Associates, ImageCat, Rolf Jensen and Associates, TRC Solutions.
17. Agency/Title of Grant: NSF / DIBBs Program, Building a Modular Cyber-Platform for Systematic Collection, Curation, and Preservation of Large Engineering and Science Data.  
Duration of Funding (Dates): September 2014, August 2017.  
Total amount of award: \$1,500,000.00  
Co-Investigators: A. Catlin, A. Irfanoglu, C. Sim, L. Zilinski, M. McLennan.
18. Agency/Title of Grant: FENOC / Investigation on The Capacity of Lap Splices of No. 11 Reinforcing Bars, Phase II.  
Duration of Funding (Dates): January 2016, May 2016.  
Total amount of award: \$103,000.00  
Co-Investigators: M. Sozen.
19. Agency/Title of Grant: CRS / Dynamic Tests of Stone Masonry Walls with Earth  
Duration of Funding (Dates): AUG 2016 – DEC 2017.  
Total amount of award: \$78,630  
Co-Investigators: A. Irfanoglu, L. Laughery
20. Agency/Title of Grant: NSF/ Collaborative Research: Investigation of Reinforced Concrete Buildings Damaged in the M6.4 Southern Taiwan Earthquake of February 2016  
Duration of Funding (Dates): MAR 2016 – SEP 2016.  
Total amount of award: \$48,000  
Co-Investigators: D. Lehman.
21. Agency/Title of Grant: FENOC Experimental Study of The Effect of Laminar Cracks on Strength and Ductility 79-in Splices of #11 Reinforcing Bars.  
Duration of Funding (Dates): Dec 2016-Dec 2017.

Total amount of award: \$76,000.

22. Agency/Title of Grant: Pankow Foundation / Development and Splice Lengths for High-Strength Reinforcement  
Duration of Funding (Dates): JAN 2017 – AUG 2018.  
Total amount of award: \$260,000  
Co-Investigators: R. Frosch.
23. Agency/Title of Grant: NSF/ DIBBS CIF21 DIBBs: Creating a Digital Environment for Enabling Data-driven Science (DEEDS).  
Duration of Funding (Dates): AUG 2017 – AUG 2021.  
Total amount of award: \$3,459,000  
Role: Advisor  
Principal Investigator: A.C. Catlin
24. Agency/Title of Grant: NSF/ RAPID Collaborative Research: The Effects of the 2017 Central Mexico Earthquake on Reinforced Concrete Buildings.  
Duration of Funding (Dates): JAN 2018– DEC 2018.  
Total amount of award: \$18,000  
Co-Investigators: G. Mosqueda, A. Behrouzi, M. Kreger, A. Stavridis.

#### **New Zealand**

25. Funder: QuakeCoRE Center of Research Excellence- QuakeCoRE Strategic Funds  
Year Awarded: 2023  
Project Title: Effective Retrofit Techniques  
Funding Value: NZD 59,000
26. Funder: Earthquake Commission (EQC), Toka Tu Ake  
Year Awarded: 2022  
Project Title: Whole-of-Building Approach to Improve Seismic Retrofits of Buildings in New Zealand  
Funding Value: NZD 950,000
27. Funder: Royal Society of New Zealand- Catalyst: Seeding - JSPS Joint Research Projects  
Year Awarded: 2 May 2022  
Project Title: Workshops on Rapid Post-Disaster Sensor-Based Building Diagnosis  
Funding Value: NZD 60,000
28. Funder: Earthquake Commission (EQC). Toka Tu Ake - EQC Biennial Research Grants  
Year Awarded: 17 December 2021  
Project Title: More Resilient Wall Building Structures  
Funding Value: NZD 70,000
29. Funder: Tertiary Education Commission- TEC CoRE Te Hiranga Rū QuakeCoRE (2021 - 2028)  
Year Awarded: 25 March 2022  
Project Title: QuakeCoRE Programme Area Leader (PAL)

Funding Value: NZD 60,680

- 30 Funder: Tertiary Education Commission- TEC CoRE Te Hiranga Rū QuakeCoRE (2021 - 2028)  
Year Awarded: 11 March 2022  
Project Title: QuakeCore DT2: Whole-of-Building Seismic Performance  
Funding Value: NZD 578,112 (Part of a NZD 31,500,000 project with coPIs Bradley, Orense, Henry, Noy, Hopkins, Johnston, Orchiston, Kenney, Saunders, Sullivan, Becker, Elwood, Rodgers, Chang-Richards, Wotherspoon, Brown, Nair, McDonald)
- 31 Funder: QuakeCoRE Center of Research Excellence- QuakeCoRE Strategic Funds  
Year Awarded: 2021  
Project Title: Tests on Retrofitted RC Columns  
Funding Value: NZD 37,000
- 32 Funder: QuakeCoRE Center of Research Excellence- QuakeCoRE Strategic Funds  
Year Awarded: 2021  
Project Title: Modular Reaction System at SEL  
Funding Value: NZD 25,000
- 33 Funder: QuakeCoRE Center of Research Excellence- QuakeCoRE Strategic Funds  
Year Awarded: 2020  
Project Title: Hydraulic Innovations at SEL  
Funding Value: NZD 50,000
- 34 Funder: Resilience to Nature's Challenges- Resilience to Nature's Challenges  
Year Awarded: 2019  
Project Title: Active Confinement to Strengthen RC Columns  
Funding Value: NZD 50,000