CURRICULUM VITAE

Personal Information

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Research Group Webpage:	http://dimitrios-lignos.research.mcgill.ca/index.html

Education

2009-2010 **Kyoto University/E-Defense, Japan**
Postdoctoral research fellow in Civil and Environmental Engineering. (CEE)
Research Topic: *"**Effect of long duration earthquakes on high-rise steel buildings**"*
Supervisor: Professor Masayoshi Nakashima

2008-2009 **Stanford University, CA, USA**
Postdoctoral research fellow in Civil and Environmental Engineering. (CEE)
Research Topic: *"**Seismic retrofit of steel structures with innovative materials**"*
Supervisor: Professor Sarah L. Billington

2004-2008 **Stanford University, CA, USA**
Doctor of Philosophy (**Ph.D.)** in Civil and Environmental Engineering. (CEE)
Ph.D. Dissertation Topic: *"**Sidesway collapse of deteriorating structural systems under seismic excitations**"*
Supervisor: Professor Helmut Krawinkler

2003-2004 **Stanford University, CA, USA**
Master of Science (**MSc**) in Civil and Environmental Engineering. (CEE)
Advisor: Professor Helmut Krawinkler **GPA: 4.03/4.00**

1998-2003 **National Technical University of Athens (NTUA),** Greece
Diploma, M. Eng. in CEE with specialization in Structural Engineering
Thesis Topic: ***"Advanced nonlinear techniques to investigate the effects of mass and stiffness irregularities on seismic demands of steel moment frames"***
Supervisor: Professor Charis J. Gantes **GPA: 9.11/10.00**

Research Interests

Collapse Assessment of Structural Steel Systems under Extreme Loading
High Performance Steel Materials for Multi-Hazard Mitigation
Welding Procedures for Heavy Assemblies and Stocky Shapes
Experimental Methods in Civil Engineering
Advanced Finite Element Nonlinear Modeling & Analysis for High-Performance Computing
Fatigue and Fracture of Metals
Multi-Hazard Resilient Structural Systems
Retrofit Techniques for Structural Systems with Innovative Materials
Performance-Based Earthquake Engineering
Energy Dissipation Devises

Appointments

2010 – present	**Assistant Professor,** McGill University, Montreal, QC, H3A 2K6, Canada
2009 – 2010	**Research Engineer**, Stanford University, Stanford, CA, in Collaboration with Professor E. Miranda (PI) as part of the NSF NEESR-CR (award Number 0936633) project "Collapse Simulation of Multi-Story Buildings through Hybrid Testing"
2009 – 2010	**JSPS Postdoctoral Researcher**, Kyoto University, Disaster Prevention Research Institute (DPRI), Division of Earthquake Resistant Structures, Japan Supervision: Professor Masayoshi Nakashima (Kyoto University, E-Defense)
2008 – 2009	**Postdoctoral Researcher**, Stanford University, Stanford, CA, USA Supervision: Professor S. Billington (Stanford, CA)
2008 – 2009	**Visiting Researcher**, University of California, Berkeley, CA, USA Design, plan and execution of state-of-the art hybrid simulation testing of retrofitted steel structures with ductile fiber reinforced concrete, as part of Network for Earthquake Engineering Simulation (NEES), in collaboration with Professors S. Billington, (Stanford, CA), Professor J. K. Wight (University of Michigan)
2006 – 2007	**Visiting Researcher**, State University at Buffalo, Buffalo, New York (SUNY), USA Planned, designed and conducted two shaking table collapse tests of a scale model of a 4-story steel structure at the NEES facility at University at Buffalo. The objective was to validate analytically and experimentally the collapse prediction of frame structures. Supervision: Professor A. Whittaker; Professor H. Krawinkler
2004 – 2008	**Graduate Research Assistant**, Stanford University, Stanford, CA, USA Supervision: Professor H. Krawinkler (Stanford, CA)

Honors/Awards

2015 – 2020	**"William Dawson Scholar Award"** for infrastructure resilience. The William Dawson award recognizes a scholar developing into an outstanding and original researcher of world-class caliber who is poised to become a leader in his field, similar to that of a CRC Tier 2.
2014	**"Christophe Pierre Award for Research Excellence – Early Career"** for recognizing excellence and potential for future preeminence in research by academic staff in the Faculty of Engineering, McGill University.
2014	**"ASCE Outstanding Reviewer Award 2013"** in recognition of outstanding service as a reviewer for the American Society of Civil Engineers (ASCE) Journal of Structural Engineering.
2013	**"ASCE State-of-the-Art of Civil Engineering Award 2013"** for the paper "Deterioration Modeling of Steel Components in Support of Collapse Prediction of Steel Moment Frames Under Earthquake Loading," Journal of Structural Engineering, November 2011, for its contribution toward rationalizing collapse estimation for steel moment frames under seismic loading.
2012	**"ASCE Outstanding Reviewer Award 2012"** in recognition of outstanding service as a reviewer for the American Society of Civil Engineers (ASCE) Journal of Structural Engineering.
2012	**First Place Award Winner** of the E-Defense International Blind Analysis Contest 2012 in the Category of "Base Isolated Configuration". Awarded during the 9th International Conference on Urban Earthquake Engineering (8CUEE), Tokyo, Japan, March 2012.
2011 – 2012	**"Engineering Class of 1944"** Outstanding Teaching Award among the faculty of Engineering, *McGill University*.

2009 – 2010 **Third Place Award Winner** of the E-Defense Blind Analysis Contest 2009 in the Category of 2-Dimensional Analysis, "Steel Damper". Awarded during the 7th International Conference on Urban Earthquake Engineering (7CUEE), Tokyo, Japan, March 2010.

2009 – 2010 **Japan Society for the Promotion of Science (JSPS) honorary fellowship** to conduct research in Japan in the Disaster Prevention Research Institute **(DPRI)** in Kyoto University and Hyogo Earthquake Engineering Research Center **(E-Defense)** focusing on seismic capacity of high-rise steel buildings, and energy dissipation devices.

2008 – 2009 National Science Foundation (**NSF**) **Award** for Experimental Research in Earthquake Engineering to participate in a full scale 6-story earthquake test and damage inspection in world's largest shaking table in Japan (E-Defense, National research institute for earth science and disaster prevent) for developing a performance-based seismic design philosophy for mid-rise wood construction

2005 - 2006 **John A. Blume Fellow for Doctor of Philosophy**, Stanford, CA (**First Recipient**)

2005 - 2006 **Medal and Award** for exemplary research in the area of earthquake engineering (awarded during 3rd conference on Mechanics and Solids, *Massachusetts Institute of Technology*)

2005 - 2006 **"John Argyris" Medal and Award** for best Diploma Thesis in the area of Earthquake Engineering from Greek Association of Computational Mechanics (awarded during 5th GRACM conference on computational mechanics, Cyprus)

2003 - 2004 **Stanford University Fellow** for Master of Science, Stanford, CA

2003 - 2004 **Fulbright Scholar** to pursue graduate studies in United States

1998 - 2003 **5 "Distinguished Performance" Awards** from Technical Chamber of Greece (Ranked among the top 3 students of NTUA for 5 consequent years)

1999 - 2003 **5 Scholarships** from the Greek Institution of National Scholarships (IKY) (top 1% in a class of 250 students in NTUA for 5 consequent years)

1999 - 2000 **6 "Distinguished Performance" Awards** from NTUA for exceptional performance in Mathematics

Awarded Research & Industry Grants

2015 – present **Natural Sciences and Engineering Research Council of Canada (NSERC) - Research Tools and Instruments (RTI),** ***Award $114,818:*** "Laser Aided Technology for Three Dimensional Finite Element Modeling and Post-Disaster Evaluation of Frame Buildings", **D.G. Lignos (principal)**, G. McClure, C.A. Rogers, D. Mitchell (equipment).

2014 – present **FQRNT Projet de Recherche en Equipe,** ***Award $229,500*****:** "Stratégies de réhabilitation sismique des structures de bâtiments en acier pour la protection du public et la réduction des impacts économiques au Québec", R. Tremblay (principal), **D.G. Lignos**, C.A. Rogers, L. Tirca.

2013 – 2015 **Natural Sciences and Engineering Research Council of Canada (NSERC) - Research Tools and Instruments (RTI),** ***Award $121,503:*** "A High Capacity Dynamic Actuator for Large-Scale Experimental Testing Towards Seismic Resilience of Infrastructure Facilities", **D.G. Lignos (principal)**, G. McClure, C.A. Rogers, O-S. Kwon, O. Mercan (equipment).

2013 – present **Collaborative Industry Grant (Nippon Steel & Sumitomo Metal Corporation, Japan),** ***Award $185,400:*** "Collapse Assessment of Steel Moment Resisting Frames Designed With High-Yield Ratio Steel Columns", **D.G. Lignos (principal)**.

2013 – 2015 **Steel Structures Education Foundation (SSEF),** ***Award $16,000:*** "Development of R_y, R_t Factors and Probable Brace Resistance Axial Loads for the Seismic Design of Bracing Connections and Other Members", **D.G. Lignos (principal)**.

2013 – present **International Collaborative Grant (Japan, U.S.A, Canada),** ***Award $50,000:*** "General

Collaborative Research on Assessment of Collapse Safety Margin in High-Rise Steel Framed Structures under Extreme Earthquake Loading Beyond Current Code Specifications", G. Mosqueda (principal), **D.G. Lignos**, M. Sivaselvan, M. Nakashima.

2013 – present **Institute of Sustainability in Engineering and Design (ISEAD), *Award $16,500*:** "Decision Making Tool for Life-Cyclic Assessment for Critical Infrastructure Subjected to Natural Hazards", **D.G. Lignos (principal)**.

2013 – present **Fonds de recherche du Québec - Nature et technologies, Regroupements stratégiques, *Award $2,394,720*:** "Centre d'études interuniversitaire sur les structures sous charges extrêmes (CEISCE)", P. Paultre (principal) & 17 others.

2012 – 2015 **FQRNT Projet de Recherche en Equipe, *Award $178,500*:** "Fast Post-Earthquake Functionality Assessment of Critical Infrastructure in Canada", **D.G. Lignos (principal)**, G. McClure, I. Psaromiligkos.

2012 – present **Canadian Foundation for Innovation (CFI), *Award $200,000:*** "A Laboratory for Seismic Risk Mitigation of Critical Infrastructure", **D.G. Lignos (principal)** (equipment).

2012 – present **Natural Sciences and Engineering Research Council of Canada (NSERC) - Discovery Grant, *Award $120,000*:** "Performance-Based Assessment Techniques for Seismic Evaluation and Retrofit of Steel Structures Under Design and Extreme Earthquakes", **D.G. Lignos (principal)**.

2012 - 2015 **Natural Sciences and Engineering Research Council of Canada (NSERC) – Collaborative Research and Development (CRD) , *Award $225,667*:** "Design of Shear Plate Connections and Welding of Heavy Plates & Jumbo Sections", C.A. Rogers (principal) and **D.G. Lignos** (co-PI).

2012 – present **ADF Group Inc & DPHV Structural Consultants - Industry Grant, *Award $150,000*:** Design of Shear Plate Connections and Welding of Heavy Plates & Jumbo Shapes. C.A. Rogers (principal) and **D.G. Lignos** (co-PI).

2012 – 2014 **Institute of Sustainability in Engineering and Design (ISEAD), *Award $8,000*:** "Guidelines for Sustainable Design of Civil Engineering Systems", **D.G. Lignos (principal)**.

2012 – 2013 **Steel Structures Education Foundation (SSEF), *Award $17,000:*** "Dynamic Stability of Steel Columns Subjected to Seismic Loading', **D.G. Lignos (principal)**, R. Tremblay, C. P. Lamarche.

2012 – 2014 **FQRNT Établissement de nouveaux chercheurs, *Award $40,000:*** "Earthquake Performance Evaluation of Conventional and Base-Isolated Nuclear Power Plants in Canada", **D.G. Lignos (principal)**.

2012 – 2013 **Fonds de recherche du Québec - Nature et technologies, Regroupements stratégiques, *Award $200,000*:** "Centre d'études interuniversitaire sur les structures sous charges extrêmes (CEISCE)", P. Paultre (principal) & 17 others.

2011 – 2012 **NSF NEESR-CR, 1142058, *Award $45,000*:** "Learning from Earthquakes - Performance and Resilience Data from the March 2011 Tohoku, Japan Earthquake on Bridges, Buildings, and Government and Community Response", J. Berger (principal), J. Wallace, J. Ricles, **D.G. Lignos** J. Moehle, H. Shiohara, T. Okazaki, M. Midorikawa, *through* George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) Division of Civil, Mechanical, and Manufacturing Innovation Directorate for Engineering Suite 545 National Science Foundation.

2009 – 2012 **NSF NEESR-CR Proposal 0936633, *Award $1.2Million*:** "Collapse Simulation of Multi-Story Buildings through Hybrid Testing", E. Miranda, **D.G. Lignos**, H. Krawinkler, R. Medina, G. Mosqueda, B. Fell, *through* George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) Division of Civil, Mechanical, and Manufacturing Innovation Directorate for Engineering Suite 545 National Science Foundation.

Participation in International Committees of Experts

2014-present Applied Technology Council, NEHRP Consultants Joint Venture, Member, Technical Committee, ATC-114-Task Order 38, *"Development of Accurate Models and Efficient Simulation Capabilities for Collapse Analysis to Support Implementation of Performance Based Seismic Engineering"*, activities of this committee are funded by the National Institute of Standards and Technology (NIST), Washington, DC, USA.

2013-present Applied Technology Council, NEHRP Consultants Joint Venture, Member, Technical Committee, ATC-106-Task Order 32, *"Seismic behavior and design of deep, slender wide-flange structural steel beam-column members: Phase 2 Experimental Evaluation"*, activities of this committee are funded by the National Institute of Standards and Technology (NIST), Washington, DC, USA.

2013-present Member of the Structural Engineering Institute (SEI) of the American Society of Civil Engineers Technical Activities Division, Disaster Resilience of Structures Committee (2013-2019).

2012-present Member Centre d'étude interuniversitaire des structures sous charges extrêmes (CEISCE).

2011-2013 Applied Technology Council, NEHRP Consultants Joint Venture, Member, Technical Committee, ATC-90-Task Order 17, *"development of a comprehensive long-term plan to research the seismic behavior and design of deep, slender wide-flange structural steel beam-column members"*, activities of this committee are funded by the National Institute of Standards and Technology (NIST), Washington, DC, USA.

2011-2012 Member of the Research Team, which was dispatched by the Earthquake Engineering Research Institute (EERI) (Only representative from Canada) to investigate in collaboration with researchers from the Architectural Institute of Japan (AIJ) the recent Great East Japan earthquake and tsunami and its effects on steel and high performance (base isolated) structures as part of a comprehensive earthquake hazards reduction program underway in the United States (April 2011-present).

2011-2012 Member, Working Group, NEES TIPS/E-Defense Full Scale Seismic Isolation Test Program and Workshop, invited participant together with 20 other earthquake simulation experts around the world to develop an action plan for research and outreach for modeling and analyzing base-isolated structures for high seismic performance and high seismic resiliency in Japan and United States.

2011-present Member of the Structural Engineering Institute (SEI) of the American Society of Civil Engineers Technical Activities Division, Methods of Analysis Committee (2011-2017).

2011-present Member of the Structural Engineering Institute (SEI) of the American Society of Civil Engineers Technical Activities Division, Seismic Effects Committee (2011-2017).

2009-2010 Applied Technology Council, NEHRP Consultants Joint Venture, Member, Working Group, ATC-76-Task Order 6, *"Improved Nonlinear Static Seismic Analysis Procedures-Multiple-Degree-of-Freedom Modeling, Report No: NIST GCR 10-917-9"*, funded by the National Earthquake Hazards Reduction Program (NEHRP), (2009-2010).

2008-2010 Applied Technology Council, NEHRP Consultants Joint Venture, Member, Working Group, ATC-76-Task Order 1, *"Evaluation of the FEMA P-695 Methodology for Quantification of Building Seismic Performance Factors, Report No: NIST GCR 10-917-8"*, funded by the National Earthquake Hazards Reduction Program (NEHRP), (2008-2010).

Teaching

McGill University, Department of Civil Engineering and Applied Mechanics

CIVE 462 – "Design of Steel Structures" (Instructor), Fall 2013

Civil Engineering: Design of structural steel elements: plate girders, members under combined loadings, eccentrically loaded connections, structural systems. Design of structural steel systems: composite floor systems, braced frames, moment resisting frames.

CIVE 320 – "Numerical Methods" (Instructor), Fall 2010-2014
Civil Engineering: Numerical procedures applicable to civil engineering problems: integration, differentiation, solution of initial-value problems, solving linear and non-linear systems of equations, boundary-value problems for ordinary-differential equations, and for partial-differential equations.

CIVE 616 – "Nonlinear Structural Analysis for Buildings" (Instructor), Fall 2011-2014
Civil Engineering: Advanced simulation techniques for nonlinear analysis of structures under earthquake loading; modeling of P-Delta effects, material nonlinearity, component deterioration and fracture, diaphragm action, performance-based earthquake design, pushover analysis, nonlinear time history analysis, simplified modeling and limitations.

CIVE 602 – "Finite Element Analysis" (Instructor), Winter 2012-2014
Civil Engineering: Development of displacement based simple and high order, one, two and three dimensional elements for linear elastic stress analysis. Variational and other methods for element formulation. Plate bending and shell elements. Finite element programming. Use of package programs in static analysis of structures.

CIVE 418 – "Design Project" (Co-Instructor), Fall 2010-2014, Winter 2011-2014
Civil Engineering: Capstone design project.

Publications **(Names of Post-Graduate, Graduate and/or Undergraduate Students Supervised are Underlined)**

Book Chapters

B.1. **Lignos, D.G.**, Putman, C., Krawinkler, H. (2013). "Seismic Assessment of Steel Moment Frames Using Simplified Nonlinear Models", Chapter 5 in "Computational Methods in Earthquake Engineering", Papadrakakis, M., Fragiadakis, M., Plevris, V., (Ed.), Vol. 2, Published by Springer, NY.

B.2. Zareian, F., **Lignos, D.G.**, Krawinkler, H. (2011). "Seismic Design Modification Factors for Steel SMRFs for Uniform Collapse Safety", Book Chapter in "Protection of the Built Environment Against Earthquakes", Published by Springer, NY.

B.3. **Lignos, D.G.,** Krawinkler, H., Whittaker, A.S. (2010). "Experimental and Analytical Collapse Assessment of Steel Moment-Resisting Frames", Book Chapter in "Computational Methods in Applied Sciences", *European Community on Computational Methods in Applied Sciences*, Vol. 3, Published by Springer, NY.

B.4. Krawinkler, H., **Lignos, D.G.** (2009). "How to Predict the Probability of Collapse of Non-Ductile Building Structures", Book Chapter in "Seismic Risk Assessment and Retrofitting", *Geotechnical, Geological, and Earthquake Engineering*, Vol. 10, Published by Springer, NY.

B.5. Krawinkler, H., Zareian, F., **Lignos, D.G.,** Ibarra L.F. (2009). "Significance of Modeling Deterioration in Structural Components for Predicting the Collapse Potential of Structures under Earthquake Excitations", Book Chapter in "Performance-Based Earthquake Engineering", Published by Springer, NY.

Refereed Journal Publications

J.1. Elkady, A., **Lignos, D.G.** (2015). "Analytical Investigation of the Cyclic Behavior and Plastic Hinge Formation in Deep Wide-Flange Steel Beam-Columns", *Bulletin of Earthquake Engineering*, Vol. 13(4), pp. 1097-1118, doi: 10.1007/s10518-014-9640-y.

J.2. Eads, L., Miranda, E., **Lignos, D.G.** (2015). "Average Spectral Acceleration as an Intensity Measure for Collapse Risk Assessment", *Earthquake Engineering and Structural Dynamics* (EESD), doi: 10.1002/eqe.2575 (available in early view).

J.3. **Lignos, D.G.,** Putman, C., Krawinkler, H. (2015). "Application of Simplified Analysis Procedures For Performance-Based Earthquake Evaluation of Steel Special Moment Frames", *Earthquake Spectra*, Article first published online: 14 Jan. 2015, doi: http: dx.doi.org10.1193081413EQS230M.

J.4. Kazantzi, A., Vamvatsikos, D., **Lignos, D.G.** (2014). "Seismic Performance of a Steel Moment-Resisting Frame Subjected to Strength and Ductility Uncertainty", *Journal of Engineering Structures*, Vol. 78, pp. 69-77, doi: 10.1016/j.engstruct.2014.06.044.

J.5. Elkady, A., **Lignos, D.G.** (2014). "Effect of Gravity Framing on the Overstrength and Collapse Capacity of Steel Frame Buildings With Perimeter Special Moment Frames", *Earthquake Engineering and Structural Dynamics* (EESD), doi: 10.1002/eqe.2519 (available in early view).

J.6. Elkady, A., **Lignos, D.G.** (2014). "Modeling of the Composite Action in Fully Restrained Beam-to-Column Connections: Implications in the Seismic Design and Collapse Capacity of Steel Special Moment Frames", *Earthquake Engineering and Structural Dynamics*, EESD, Vol. 43(13), pp. 1935-1954, doi: 10.1002/eqe.2430.

J.7. **Lignos, D.G.,** Luna-Moreno, M.D., Billington, S.L. (2014). "Seismic Retrofit of Steel Moment Resisting Frames With High Performance Fiber Reinforced Concrete Infill Panels: Large Scale Hybrid Simulation Tests", ASCE, *Journal of Structural Engineering,* Vol. 140 (3), pp. 1382-1394, doi:10.1061/(ASCE)ST.1943-541X.0000877.

J.8. **Lignos, D.G.,** Miranda, E. (2014). "Estimation of Base Motion in Instrumented Steel Buildings Using Output-Only System Identification", *Earthquake Engineering and Structural Dynamics*, EESD, Vol. 43 (4), pp. 547-563, doi: 10.1002/eqe.2359.

J.9. Karamanci, E., **Lignos, D.G.** (2014). "Computational Approach for Collapse Assessment of Concentrically Braced Frames in Seismic Regions," ASCE, *Journal of Structural Engineering*, Vol. 140**(8)**, pp.A4014019/1-15, doi: 10.1061/(ASCE)ST.1943-541X.0001062.

J.10. **Lignos, D.G.,** Karamanci, E. (2013). "Drift-Based and Dual-Parameter Fragility Assessment of Concentrically Braced Frames in Seismic Regions," *Journal of Constructional Steel Research* Vol. **90**, pp. 209-220, doi: 10.1016/j.jcsr.2013.07.034.

J.11. Okazaki, T., **Lignos, D.G.,** Midorikawa, M., Ricles, J.M., Love, J. (2013). "Damage to Steel Buildings Observed after the 2011 Tohoku Earthquake", *Earthquake Spectra,* Vol. 29 (S1), pp. S219-S243*,* doi: http://dx.doi.org/10.1193/1.4000124.

J.12. **Lignos, D.G.,** Krawinkler, H. (2013). "Development and Utilization of Structural Component Databases for Performance-Based Earthquake Engineering", ASCE, *Journal of Structural Engineering,* Vol. 139 (NEES 2), pp. 1382-1394, doi:10/1061/(ASCE)ST.1943-541X.0000646.

J.13. Okazaki, T., **Lignos, D.G.,** Hikino, T., Kajiwara, K. (2013). "Dynamic Response of a Concentrically Braced Frame", ASCE, *Journal of Structural Engineering,* Vol. 139 (4), pp. 515-525, doi: 10.1061/(ASCE)ST.1943-541X.0000679.

J.14. **Lignos, D.G.,** Hikino, T., Matsuoka, Y., Nakashima, M. (2013). "Collapse Assessment of Steel Moment Frames Based on E-Defense Full Scale Shake Table Collapse Tests", ASCE, *Journal of Structural Engineering,* Vol. 139 (**1**), pp. 120-132, doi: 10.1061/(ASCE)ST.1943-541X.0000608.

J.15. Eads, L., Miranda, E., Krawinkler, H., **Lignos, D.G.** (2013). "Collapse Risk Assessment for Performance-Based Earthquake Engineering", *Earthquake Engineering and Structural Dynamics*, EESD, Vol. 42 (1), pp. 25-41, doi: 10.1002/eqe.2191.

J.16. Noh, H.Y., **Lignos, D.G.**, Nair, K. K., Kiremidjian, A. (2012). "Development of Fragility Functions as a Damage Classification/Prediction Method for Steel Moment Frames Using a Wavelet-based Damage Sensitive Feature", *Journal of Earthquake Engineering and Structural Dynamics*, EESD, Vol. 41(4), pp. 681-696, doi: 10.1002/eqe.1151.

J.17. Ramirez, C. M., **Lignos, D.G.,** Miranda, E., Kolios, D. (2012). "Fragility Functions for Pre-Northridge Welded Steel Moment-Resisting Beam-to-Column Connections", *Journal of Engineering Structures,* Vol. 45, pp. 574-584, doi: 10.1016/j.engstruct.2012.07.007.

J.18. **Lignos, D.G.,** Chung, Y.L., Nagae, T., Nakashima, M. (2011). "Numerical and Experimental Evaluation of Seismic Capacity of High Rise Steel Buildings Subjected to Long Duration Earthquakes", *Journal of Computers and Structures*, Vol. 89 (11-12), pp. 959-967, doi: 10.1016/j.compstruc.2011.01.017.

J.19. **Lignos, D.G.,** Krawinkler, H. (2011). "Deterioration Modeling of Steel Components in Support to Collapse Prediction of Steel Moment Frames Under Earthquake Loading", ASCE *Journal of Structural Engineering,* Vol. 137 (11), pp. 1291-1302, doi: 10.1061/(ASCE)ST.1943-541X.0000376.

2013 ASCE State-of-the-art of Civil Engineering Award*

J.20. Noh, H.Y., Nair, K. K., **Lignos, D.G.,** Kiremidjian, A. (2011). "On the Use of Wavelet Based Damage Sensitive Features for Structural Damage Diagnosis using Strong Motion Data", ASCE, *Journal of Structural Engineering*, Vol. 137 (10), pp. 1215-1228, doi: 10.1061/(ASCE)ST.1943-541X.0000385.

J.21. Shafei, B., Zareian, F., **Lignos, D.G.** (2011). "A Simplified Method for Collapse Capacity Assessment of Structural Systems", *Journal of Engineering Structures,* Vol. 33 (4), pp. 1107-1116, doi: 10.1016/j.engstruct.2010.12.028.

J.22. **Lignos, D.G.,** Krawinkler, H., Whittaker, A.S. (2011). "Prediction and Validation of Sidesway Collapse of Two Scale Models of a 4-Story Steel Moment Frame", *Journal of Earthquake Engineering and Structural Dynamics,* EESD, Vol. 40 (7), pp. 807-825, doi 10.1002/eqe.1061:

J.23. **Lignos, D.G.,** Kolios, D., Miranda, E. (2010). "Fragility Assessment of Reduced Beam Section Moment Connections", ASCE, *Journal of Structural Engineering*, Vol. 136 (9), pp. 1140-1150, doi: 10.1061/(ASCE)ST.1943-541X.0000214.

J.24. Zareian, F., Krawinkler, H., Ibarra L.F., **Lignos, D.G.** (2009). "Basic Concepts and Performance Measures in Prediction of Collapse of Buildings under Earthquake Ground Motions", *The Structural Design of Tall and Special Buildings Journal*, Vol. 19 (1-2), 167-181, doi: 10.1002/tal.546.

Refereed Journal Publications Under Review

S.1. Ibrahim, O., **Lignos, D.G.,** Rogers, C.A. (2014). "A Probabilistic Approach for Assessing Discontinuities in Structural Steel Based on Charpy-V-Notch Tests", *Journal of Structural Safety,* (under review).

S.2. Hashemi, J., Mosqueda, G., Lignos, D.G., Medina, R., Miranda, E. (2014). "Effects of Numerical and Experimental Errors in Hybrid Simulation of Complex Structural Systems through Collapse", *Journal of Earthquake Engineering*, (under review).

S.3. Akcelyan, S., **Lignos, D.G.,** Hikino, T., Nakashima, M. (2014). "Evaluation of Simplified and State-of-the-Art Analysis Procedures of Steel Buildings Equipped with Supplemental Damping Devices Based on E-Defense Full-Scale Shake Table Tests, ASCE *Journal of Structural Engineering* (under review).

Refereed Conference Publications

C.1. Hwang, S.H., Elkady, A., Al-Bardaweel, S., **Lignos, D.G.** (2015). "Earthquake Loss Assessment of Steel Frame Buildings Designed in Highly Seismic Regions", *Proceedings, 5th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, May 25-27 2015, Crete Island, Greece.

C.2. Elkady, A., **Lignos, D.G. (**2015). "Seismic Design Criteria for Steel Moment Resisting Frames for Collapse Risk Mitigation", *Proceedings, 8th International Conference on Behavior of Steel Structures in Seismic Areas,* Shanghai, China, July 1-3, 2015.

C.3. Suzuki, Y., **Lignos, D.G.** (2015). "Large Scale Collapse Experiments of Wide Flange Steel Beam-Columns", *Proceedings, 8th International Conference on Behavior of Steel Structures in Seismic Areas*, Shanghai, China, July 1-3, 2015.

C.4. Hertz, J., **Lignos, D.G.,** Rogers, C.A. (2015). "Full-Scale Experimental Testing of Extended Beam-to-Column and Beam-to-Girder Shear Tab Connections Subjected to Shear", *Proceedings, 8th International Conference on Behavior of Steel Structures in Seismic Areas*, Shanghai, China, July 1-3, 2015.

C.5. Cerri, S., Moir, H., **Lignos, D.G.** (2015). "Development of R_y, R_t Factors and Probable Brace Resistance Axial Loads for the Seismic Design of Bracing Connections and Other Members",

Proceedings, 8th International Conference on Behavior of Steel Structures in Seismic Areas, Shanghai, China, July 1-3, 2015.

C.6. Motallebi, M., Hertz, J., Goldstein, N., **Lignos, D.G.,** Rogers, C.A. (2015). "Flexural Buckling of Extended Shear Tab Connections Under Gravity Included Shear Force", *Proceedings, Structural Stability Conference (SSRC), Nashville, Tennessee*, United States, March 24-27, 2015.

C.7. Ibrahim, O., Nikolaidou, V., **Lignos, D.G.,** Rogers, C.A. (2014). "Evaluation of Common Welding Procedures for Thick Steel Plates and High Strength Steel Sections", *Proceedings, 8th Hellenic National Conference of Steel Structures*, October 2nd – 4th, Tripoli, Greece.

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C.56. **Lignos, D.G.,** Krawinkler, H., Whittaker, S. A., (2008). "Analytical and Experimental Prediction of Sidesway Collapse of Steel Frames", *Proceedings 6th National Conference of Steel Structures*, Ioannina, Greece, October 2nd – 4th, 2008.

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C.60. **Lignos**, **D.G.,** Stergiou, E.C., Gantes, C.J. (2005). "Structural Reliability of Steel Structures Based on Interstory Drift and Direct Loss Demands", *Proceedings 5th GRACM conference on computational mechanics*, Cyprus.

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C.62. **Lignos**, **D.G.,** Gantes, C.J. (2005). "Seismic Demands for Steel-Braced Frames with Stiffness Irregularities Based on Modal Pushover Analysis", *Proceedings 4th European workshop on seismic behavior of irregular and complex structures*, Thessalonica, Greece.

Invited Papers in Referred Conference Publications

C.63. Elkady, A., **Lignos, D.G.** (2012). "Dynamic Stability of Deep Slender Steel Columns as Part of Special MRFs Designed in Seismic Regions: Finite Element Modeling", *Proceedings First International Conference on Performance-Based and Life-Cycle Structural Engineering (PLSE)*, Hong Kong (Invited paper, Collapse Minisimposium).

C.64. **Lignos, D.G.** (2012). **"**Modeling and Experimental Validation of a Full Scale 5-Story Steel Building Equipped With Tripple Friction Pendulum Bearings: E-Defense Blind Analysis Competition," *Proceedings 9th*, *International Conference on Urban Earthquake Engineering (9CUEE) & 4th Asia Conference on Earthquake Engineering*, Tokyo, Japan March 6th - 8th, 2012.

C.65. **Lignos, D.G.,** Zareian, F., Krawinkler H. (2010). "A Steel Component Database for Deterioration Modeling of Steel Beams with RBS under Cyclic Loading," *Proceedings ASCE Structures Congress, Orlando Florida, May 12-15, 2010* (Invited paper in session: Limit state evaluation of steel framed structures using the ATC 63 methodology).

C.66. Zareian, F., **Lignos, D.G.,** Krawinkler, H. (2010). "Evaluation of Seismic Collapse Performance of Steel Special Moment Resisting Frames Using the ATC-63 Methodology", *Proceedings ASCE Structures Congress, Orlando Florida, May 12-15, 2010* (Invited paper in session: Limit state evaluation of steel framed structures using the ATC 63 methodology)

C.67. Miranda, E., **Lignos, D.G.** (2009). "Estimation of Seismic Performance of Existing Steel Moment Resisting Frame Buildings by Using Continuous Models," *Proceedings ATC&SEI Conference on Improving the Seismic Performance of Existing Buildings and Other Structures*, December 9-11, San Francisco, CA, 2009. (Invited paper in session: Improving the seismic performance of existing structures through monitoring).

C.68. Krawinkler, H. Zareian, F., **Lignos, D.G.**, Ibarra, L.F. (2009). "Prediction of Collapse of Structures Under Earthquake Excitations", *Proceedings COMPDYN09* Rhodes, Greece, June 22-24, 2009 (Invited paper and keynote lecture).

C.69. **Lignos, D.G.,** Krawinkler, H., and Whittaker, A. S., (2009). "Collapse Assessment of a 4-story Steel Moment-resisting Frame", *Proceedings COMPDYN09*, Rhodes, Greece, June 22-24, 2009 (Invited paper in Progress and Challenges in Collapse Prediction, mini-symposium).

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C.72. Krawinkler, H., **Lignos, D.G.** (2007). "How to Predict and Reduce the Probability of Collapse of Non-Ductile Building Structures", *Proceedings International Workshop On Measures for the Prevention of Total Collapse of Existing Low-Rise Structures*, November 19-20, Istanbul Technical University, Istanbul, Turkey (Invited paper).

Contributions to Practical Applications of Knowledge

P.1. NIST (2011). "Research plan for the study of seismic behavior and design of deep, slender wide flange structural steel beam-column members", U.S. Department of Commerce, National Institute of Standards and Technology (NSIT GCR 11-917-13).

P.2. NIST (2010). "Applicability of nonlinear multiple-degree-of-freedom modeling for design", U.S. Department of Commerce, National Institute of Standards and Technology (NIST GCR 10-917-9).

P.3. NIST (2010). "Evaluation of the FEMA P-695 methodology for quantification of building seismic performance factors", U.S. Department of Commerce, National Institute of Standards and Technology (NIST GCR 10-917-8).

Technical Reports in Press

TR.1. Eads, L., Miranda, E., **Lignos, D.G.** (2014). "Seismic Collapse Risk Assessment of Buildings: Effects of Intensity Measure Selection and Computational Approach", *Report No. 184,* The John A. Blume Earthquake Engineering Center, Stanford, CA.

TR.2. Suzuki, Y., **Lignos, D.G.** (2014). "Collapse Behaviour of Steel Columns Subjected to Combined Axial Load and Lateral Deformations – Large Scale Experimental Studies and Analytical Modeling Development", *Report No. 2*, Nippon Steel & Sumitomo Metal Corporation, Japan, 392 pages.

TR.3. Ramos, M.D., Mosqueda, G., **Lignos, D.G.** (2014). "Hybrid Simulation of the Seismic Response of a Steel Moment Frame Building Structure Through Collapse", *Report MCEER-14-0003*, Multidisciplinary Center for Earthquake Research (MCEER), University at Buffalo, State University of New York, 376 pages.

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TR.5. Nikolaidou, V., Rogers, C., **Lignos, D.G.** (2013). "Finite Element Modeling and Evaluation of Welding Procedures in High Strength (450 MPa: 65ksi) W-Shape Column Assemblies", *M.Eng. Thesis*, Department of Civil Engineering and Applied Mechanics, McGill University, Montreal, Quebec, Canada.

TR.6. Al-Bardaweel, S., **Lignos, D.G.** (2013). "Indicators for Sustainable Design of Civil Engineering Systems: Towards Earthquake Resilient Steel Frame Buildings Through Loss Assessment", *M.Eng., Project*, Department of Civil Engineering and Applied Mechanics, McGill University, Montreal, Quebec, Canada.

TR.7. Suzuki, Y., **Lignos, D.G.** (2013). "Collapse Assessment of Steel Moment Resisting Frames Designed with High Yield Ratio Steel Columns", *Internal Report No. 1*, Nippon Steel & Sumitomo Metal Corporation, Japan, 169 pages.

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TR.9. Karamanci, E., **Lignos, D.G.** (2013). "Collapse Assessment and Performance-Based Evaluation Techniques for Concentrically Braced Frames Designed in Seismic Regions", *M.Eng. Thesis*, Department of Civil Engineering and Applied Mechanics, McGill University, Montreal, Quebec, Canada.

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TR.11. **Lignos, D.G.** (2010). "Interactive Interface for Incremental Dynamic Analysis: Theory and Example Applications Manual, Version 1.1.5", Department of Civil and Environmental Engineering, Stanford University, CA, March, 2010.

TR.12. Krebs, A.D., **Lignos, D.G.,** Billington, S.L. (2009). "Comparison of Alternative Seismic Retrofit Techniques for Steel Moment Resisting Frames", Department of Civil and Environmental Engineering, Stanford University, CA, March, 2009.

TR.13. **Lignos, D.G.** (2008). "Sidesway Collapse of Deteriorating Structural Systems under Seismic Excitations," *Ph.D. Dissertation*, Department of Civil Engineering, Stanford University, Stanford, CA.

TR.14. Hubult, E., **Lignos, D.G.** Krawinkler, H. (2008). "Assessing Potential of Adobe Walls Reinforced with Polymer Mesh," *Undergraduate Honors Thesis*, Department of Civil Engineering, Stanford University, Stanford CA, June, 2008.

TR.15. Hunt, C.M., **Lignos. D.G.,** Billington, S.L. (2008). "Evaluation of Energy Absorbent Infill Panels for Seismic Retrofit through OpenSees Simulation", Department of Civil Engineering, Stanford University, Stanford, CA, June, 2008.

TR.16. **Lignos, D.G.,** Krawinkler, H. (2007)**.** "Contributions to Collapse Prediction for Frame Structures", Kajima-CUREE Joint Research Program, Phase VI: Investigation of Factors Leading to Progressive Collapse of Structures. Category 2 Analysis of Structural Component Failure.

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TR.18. **Lignos, D.G.,** Gantes, C.J. (2003). "Advanced nonlinear techniques to investigate the effects of mass and stiffness irregularities on seismic demands of steel moment frames", *Diploma Thesis*, Laboratory of Metal Structures, National Technical University of Athens (NTUA).

Invited and Plenary Talks

T.1. **Lignos, D.G. (2015).** "Collapse Risk Assessment of Steel Frame Buildings Designed with Deep Wide-Flange Steel Columns in Highly Seismic Regions", ETH Zurich, Switzerland, April 2nd 2015.

T.2. **Lignos, D.G. (2015).** "High Performance Steel Structures for Collapse Risk Mitigation", Invited Presentation, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, April 1st 2015.

T.3. **Lignos, D.G. (2015).** "Collapse Risk Assessment of Steel Special Moment Frames Designed with Deep Slender Wide-Flange Steel Columns", Invited Presentation, University of Michigan Ann Arbor, MI, February 26th 2015.

T.4. **Lignos, D.G.** (2014). "High Performance Steel Structures for Improved Seismic Resilience", Invited Presentation, University of California, Berkeley, Berkeley, CA, USA, February 19th 2014.

T.5. **Lignos, D.G.** (2014). "Steel Frame Buildings for Improved Seismic Resilience – Collapse Risk and Earthquake Induced Economic Losses", 21th Annual Civil Engineering Conference, Montreal, Canada, May 12th, 2014 (Keynote Lecture).

T.6. **Lignos, D.G.** (2013). "Current Research on the Collapse Assessment of Steel Frame Buildings Subjected to Extreme Earthquakes Beyond the Design Level", Invited Presentation, NEES/E-Defense 10th Planning Meeting, Kyoto, Japan, December 11-13th 2013.

T.7. **Lignos, D.G.** (2013). "Current Research on the Design, Evaluation and Fabrication of Steel Structures Subjected to Seismic and Other Loads", Invited Presentation, Canadian Institute of Steel Construction, 5th Annual Quebec, Steel Workshop, Laval, Canada, October 3rd 2013.

T.8. **Lignos, D.G.** (2013). "Need for Collapse Quantification of Steel Frame Structures Subjected to Extreme Earthquake Loading: Seismic Design Implications and Future Research Directions", Invited Lecture, Futtsu Research and Development Laboratory, Nippon Steel and Sumitomo Metal Corporation, Tokyo, Japan, February 28th 2013.

T.9. **Lignos, D.G.** (2012). "Dynamic Stability of Steel Structures Designed with Deep Members in Seismic Regions", ADF Group, Inc, Montreal, Canada, October 12th, 2012.

T.10. **Lignos, D.G.** (2012). "Collapse Assessment of Steel Braced Frames in Seismic Regions", Quake Summit 2012, Boston, MA, NEES (*Network for Earthquake Engineering Simulation*) Meeting, July 9-12, 2012.

T.11. **Lignos, D.G.** (2012). "Collapse Assessment of Steel Structures Under Extreme Earthquake Loading: Recent Advancements and Future Directions", Institute of Industrial Science, University of Tokyo, Tokyo, Japan, March 8th 2012.

T.12. **Lignos, D.G.** (2011). "Lessons learnt From The 2011 Great Tohoku Earthquake in Japan", Stanford University, Earthquake Engineering Research Institute (EERI) Student Chapter, Stanford, California, July 28th 2011.

T.13. **Lignos, D. G.** (2011). "Performance of Steel Structures During The Great Tohoku Earthquake 2011 in Japan", ADF Group, Inc., Montreal, Canada, June 10th, 2011.

T.14. **Lignos, D.G.** (2011). "Recent Advancements in Collapse Assessment of Steel Structures Based on Small and Full Scale Shaking Table Collapse Tests", University of Toronto, Toronto, Canada, May 10th, 2011 (Invited Lecture).

T.15. **Lignos, D.G.** (2011). "Recent Advancements in Collapse Assessment of Steel Structures Based on Small and Full Scale Shaking Table Collapse Tests", 18th Annual Civil Engineering Conference, Montreal, Canada, March 24th, 2011 (Keynote Lecture).

T.16. **Lignos, D.G.** (2011). "Collapse Assessment of Steel Structures Under Extreme Earthquake Loading: Recent Advancements and Future Directions", Earthquake Engineering Research Institute (EERI) and Multidisciplinary Center for Earthquake Engineering Research (MCEER) lecture series, State University of New York at Buffalo (SUNY), Department of Civil & Environmental Engineering, February 23rd, 2011 (Invited Lecture).

T.17. **Lignos, D.G.** (2009). "State of Knowledge on Collapse Assessment of Structural Systems", McGill University, Canada, Department of Civil & Environmental Engineering, May, 29th, 2009 (Invited Talk).

T.18. **Lignos, D.G.** (2008). "State of Knowledge on Collapse Assessment of Frame Structures", University of Cyprus, Civil and Environmental Engineering, Seminar Series: "The Engineer in Society", December 17th 2008 (Invited Talk).

T.19. **Lignos, D.G.** (2008). "Sidesway Collapse of Deteriorating Structural Systems under Seismic Excitations", National Technical University of Athens (NTUA), Laboratory of Metal Structures, October 8th 2008 (Invited Talk).

T.20. **Lignos, D.G.,** Krawinkler H., (2008). "Collapse Tests of Two Scale Models of a Steel Frame Structure", 6th NEES (*Network for Earthquake Engineering Simulation*) Annual Meeting, Portland, Oregon, June 18th – 20th, 2008 (Plenary Talk).

T.21. **Lignos, D.G.** (2008). "Analytical and Experimental Prediction of Sidesway Collapse of Deteriorating Structural Systems", Structural Engineers Association of Southern California (SEAONC), San Francisco, CA May 19th 2008 (Invited Talk).

T.22. **Lignos, D.G.** (2008). "Contributions to Collapse Prediction of Frame Structures: Accomplishments, Future Implications and Directions", Ecole Polytechnique Fédérale de Lausanne (EPFL) , Research Seminar, Lausanne, Switzerland, April 10th 2008 (Invited Talk).

T.23. **Lignos, D.G.** (2008). "Contributions to Collapse Prediction of Frame Structures: Accomplishments, Future Implications and Directions", University of Massachusetts at Amherst, Research Seminar, March 5th 2008 (Invited Talk).

T.24. **Lignos, D.G.** (2007). "Sidesway Collapse of Deteriorating Structural Systems under Seismic Excitations," University at Buffalo NY, MCEER, NEES Research Seminar, July 20th 2007 (Invited Talk).

T.25. **Lignos, D.G.,** Krawinkler H., (2006). "A Database for Modeling Deterioration in Beams and Columns Subjected to Cyclic Bending Moments," 4th NEES (*Network for Earthquake Engineering Simulation*) Annual Meeting, Washington DC, June 18th-20th, 2006 (Plenary Talk).

Student Research Supervision

Ph.D. Degree

2010-2013 L. Eads, Stanford University, Stanford, CA (**Co-Supervised** with Prof. E. Miranda)
Position: Research Engineer, Risk Management Solutions (RMS), California, USA.

2012-present Y. Suzuki, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Ph.D. Student, McGill University, Montreal, Canada.

2012-present S. Akcelyan, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Ph.D. Student, McGill University, Montreal, Canada.

2011-present A. Elkady, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Ph.D. Student, McGill University, Montreal, Canada.

2013-present S.H. Hwang, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Ph.D. Student, McGill University, Montreal, Canada.

2011-present O. Ibrahim, McGill University, Montreal, Canada (**Co-Supervised** with Prof. C.A. Rogers)
Position: Ph.D. Student, McGill University, Montreal, Canada.

2013-present M. Nasrabadi, McGill University, Montreal, Canada (**Co-Supervised** with Prof. C.A. Rogers)
Position: Ph.D. Student, McGill University, Montreal, Canada.

2014-present V. Nikolaidou, McGill University, Montreal, Canada (**Co-Supervised** with Prof. C.A. Rogers)
Position: Ph.D. Student, McGill University, Montreal, Canada.

2012-present F. Mirshafiei, McGill University, Montreal, Canada (**Co-Supervised** with Prof. G. McClure)
Position: Ph.D. Student, McGill University, Montreal, Canada.

M.S. Degree

2011-2013 N. Al-Shawwa, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Research Engineer, ARUP Consulting Engineers, London, United Kingdom.

2011-2013 E. Karamanci, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Structural Engineer, DPHV Structural Consultants, Montreal, Canada.

2012-2013 S.Al. Bardaweel, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Structural Engineer, The Lane Construction Corporation, Waco, Texas, United States.

2012-2013 V. Nikolaidou, McGill University, Montreal, Canada (**Co-Supervised** with Prof. C.A. Rogers)

Position: Ph.D. Student, McGill University, Montreal, Canada.

2012-2014 J. Hertz, McGill University, Montreal, Canada (**Co-Supervised** with Prof. C.A. Rogers)
Position: Structural Engineer, Cleland Jardine Engineering Limited, Kanata, Ontario, Canada.

2013-present S. Walker, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: M.Eng. Student, McGill University, Montreal, Canada.

2013-present N. Goldstein, McGill University, Montreal, Canada (**Co-Supervised** with Prof. C.A. Rogers)
Position: M.Eng. Student, McGill University, Montreal, Canada.

2014-present A. Hartloper, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: M.Eng. Student, McGill University, Montreal, Canada.

2009-2010 C. Putman, Stanford University, CA (**Co-Supervised** with Prof. H. Krawinkler)
Position: Design Engineer, P.E, Degenkolb Engineers, Oakland, CA, USA.

2008-2009 A.D. Krebs, Stanford University, CA (**Co-Supervised** with Prof. S.L. Billington)
Position: Structural Engineer, CA, USA.

2008-2009 C.M. Hunt, Stanford University, CA (**Co-Supervised** with Prof. S.L. Billington)
Position: Senior Structural Engineer, ARUP, NYC, USA.

2008-2009 R. Weiner, Stanford University, CA (**Co-Supervised** with Prof. H. Krawinkler)
Position: Structural Engineer, Weidlinger Associates Inc. USA.

2006-2007 G. Soriano, Stanford University, CA (**Co-Supervised** with Prof. H. Krawinkler)
Position: Structural Engineer, Walter P. Moore, CA, USA.

2006-2007 Y. Ahuja, Stanford University, CA (**Co-Supervised** with Prof. H. Krawinkler)
Position: Structural Engineer, United Arab Emirates.

2005-2006 S. Patton, Stanford University, CA (**Co-Supervised** with Prof. H. Krawinkler)
Position: Structural Engineer, Nabih Youssef & Associates Inc., USA.

Bachelor's Degree

2014-present S. Cerri, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Senior Undergraduate Student, McGill University, Montreal Canada.

2014 S. Lawless, McGill University, Montreal, Canada (**co-Supervisor**, SURE[1]-NSERC[2] Program)
Position: Senior Undergraduate Student, McGill University, Montreal Canada.

2014 M. Moradi, McGill University, Montreal, Canada (**co-Supervisor**, SURE-NSERC Program)
Position: Structural Engineer, Montreal, Canada.

2014 D. Pizzuto, McGill University, Montreal, Canada (**co-Supervisor**, SURE-NSERC Program)
Position: Senior Undergraduate Student, McGill University, Montreal Canada.

2013 M. DeSouza, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: Junior Structural Engineer, SNC Lavalin, Montreal, Quebec, Canada.

2013 F. Pakpour, McGill University, Montreal, Canada (**co-Supervisor**, SURE-NSERC Program)
Position: Graduate Student (University of Toronto, Ontario, Canada).

2013 H. Moir, McGill University, Montreal, Canada (**co-Supervisor**, SURE Program)
Position: Junior Structural Engineer, Atkins & Van Groll Inc., Consulting Engineering, Toronto, Ontario, Canada

2013 M. Moradi, McGill University, Montreal, Canada (**co-Supervisor**, SURE Program)
Position: Senior Undergraduate Student, McGill University, Montreal, Canada.

2012-2013 M. Markhvida, McGill University, Montreal, Canada (**Primary Supervisor** SURE-NSERC)
Position: Ph.D. Student at Stanford University, CA Struct. Eng., and Geomechanics Program.

2011-2012 H. Dugum, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: 2nd year M.Sc., student, Massachusetts Institute of Technology (MIT).

2012 A. Bahou, McGill University, Montreal, Canada (**Primary Supervisor**)
Position: M.Eng. Student in Architecture.

2012 N. Goldstein, McGill University, Montreal, Canada (**Primary Supervisor**)

[1] SURE: Summer Undergraduate Research in Engineering, McGill University, http://www.mcgill.ca/engineering/current-students/undergraduate/research

[2] NSERC: Natural Sciences and Engineering Research Council of Canada, http://www.nserc-crsng.gc.ca/

Position: M.Eng. Student, McGill University, Montreal Canada.

2011 G. Martin, McGill University, Montreal, Canada (**Primary Supervisor**, SURE Program)
Position: AMEC Geotechnical Consultants, Montreal, Canada.

2011 S. Al. Bardaweel, McGill University, Montreal, Canada (**Primary Supervisor** SURE Program)
Position: M.Eng. Student, McGill University, Montreal, Canada.

Professional Memberships

American Society of Civil Engineers (ASCE), *Associate Member*
Canadian Society of Civil Engineers (CSCE), *Sustaining Member*
Canadian Welding Association (CWA), *Member*
Architectural Institute of Japan (AIJ)
American Concrete Institute (ACI)
American Institute of Steel Construction (AISC)
Earthquake Engineering Research Institute (EERI)
Network for Earthquake Engineering Simulation (NEES)
National Information Center of Earthquake Engineering (NICEE)
United States Geological Survey (USGS)
Canadian Association for Earthquake Engineering
Hellenic Society of Civil Engineers

Referee Work for Funding Agencies

2013-present National Sciences and Engineering Research Council of Canada (NSERC)
2012-present National Science Foundation, Portugal, Europe
2011-present Ontario Centres of Excellence, Canada
2013-present Karatheodoris Program for Research and Innovation, University of Patras, Patras, Greece

Referee Work - Official Reviewer in Engineering Journals

ASCE, Journal of Structural Engineering
Earthquake Engineering & Structural Dynamics
Canadian Journal of Civil Engineering
ASCE, Journal of Bridge Engineering
Soil Dynamics and Earthquake Engineering
Journal of Structures and Buildings
Earthquake Spectra
Engineering Structures
Computers & Structures
Journal of Earthquake Engineering
Bulletin of Earthquake Engineering
Computer-Aided Civil & Infrastructure Engineering

Referee Work in Engineering Conferences

CSCE Annual Conference, May 27th-30th, 2015, Regina, Saskatchewan, Canada.
10th National Conference on Earthquake Engineering (NCEE), July 21-25, 2014, Anchorage, Alaska.
Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics 2013 (VEESD 2013), 28-30th August 2013, Vienna Austria.
11th International Conference on Structural Safety and Reliability (ICOSSAR 2013), Columbia University, New York, NY, June 16th-20th, 2013.
15th World Conference in Earthquake Engineering (15WCEE), Lisbon, Portugal, September 24th-28th, 2012.
9th US National and 10th Canadian Conference on Earthquake Engineering, Reaching Beyond Borders, Toronto, Canada, July, 25-29, 2010.

3rd International Conference on Advances on Experimental Structural Engineering (3AESE), San Francisco, 15-16, 2009, CA.

Organization of International Conferences and Member of Scientific Committees

2015 Engineering Mechanics Institute Conference (EMI), June 16-19, 2015, Stanford University, Stanford, California; **planning and organization of a conference session** on "Dr. Helmut Krawinkler Memorial Symposium on Performance-Based Earthquake Engineering".

2015 International Conference in Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN15, Creta, Greece, May 25th-27th, 2015; **organized a sponsored mini-symposium** on "Loss, Risk, Uncertainty and Modeling for Seismic Performance Assessment".

2014 10th National Conference on Earthquake Engineering (NCEE), July 21-25, 2014, Anchorage, Alaska; **planning and organization of a conference session** on "Need for Collapse Characterization/Quantification of Structures Subjected to Extreme Earthquake Loading".

2013 Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics 2013 (VEESD 2013), 28-30th August 2013, Vienna Austria; **organized a mini-symposium** on "State of Knowledge in Collapse Assessment of Structures During Earthquakes".

2013 American Society of Civil Engineers (ASCE) Structures Congress, Pittsburgh, Pennsylvania, United States of America, May 2-4th 2013; **organized a sponsored session** on "Collapse Assessment of Conventional and High Performance Structures".

2012 American Society of Civil Engineers (ASCE) Structures Congress, Chicago, Illinois, United States of America, March 29-31st 2012; **organized a sponsored session** on "Recent Advancements in Collapse Assessment of Structures Under Earthquakes".

2011 American Society of Civil Engineers (ASCE) Structures Congress, Las Vegas, United States, April 14-16th 2011; **organized a sponsored session** on "Recent Developments in Simplified Nonlinear Static Procedures for Seismic Evaluation and Design of Structural Systems".

2011 International Conference in Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN11, Corfu, Greece, May 26th-28th, 2011; **organized a sponsored mini-symposium** on "Practical Analytical Methods in Estimation of Engineering Demands on Structural Systems Subjected to Natural and Man-made Hazards".

2013-2014 **Member of Scientific Committee:** National Conference of Steel Structures, 2nd-4th October 2014, Tripoli, Greece.

2012-2013 **Member of Scientific Committee:** Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics 2013 (VEESD 2013), 28-30th August 2013, Vienna, Austria.

Editorships

2014 – present Editorial Board of International Journal of Earthquakes and Structures (EAS).

2013 – 2015 Encyclopedia of Earthquake Engineering, Springer, Associate Editor for Aseismic Design.

2013 – 2014 3rd Specialty Conference on Disaster Prevention and Mitigation, Proceedings, Annual Conference of Canadian Society for Civil Engineering (CSCE), Montreal, Quebec, Canada.

Technology Transfer

Web-Based Interactive Tools for Performance-Based Earthquake Engineering: Developed a series of tools available to public that facilitate nonlinear component modeling of steel connections, fragility curves and fully searchable structural component databases. Steel Educators, Structural Engineers and Researchers can use these tools. They are publically available online from the following webpage: http://dimitrios-lignos.research.mcgill.ca/databases/

IIIDAP, Version 1.2: "Interactive Interface for Incremental Dynamic Analysis Procedure", Nonlinear dynamic analysis software that includes all recent deterioration models and is able to conduct incremental

dynamic analysis for single degree of freedom systems utilizing different sets of ground motions and alternative state-of –the-art scaling techniques. The program is able to develop fragility functions for different damage states given a hazard level and collapse acceleration spectra. Available for free from the following webpage: http://dimitrios-lignos.research.mcgill.ca/IIIDAP.html (*Copyright Protected*).

Currently used from graduate students at McGill University University in the following course:

CIVE 616: "Nonlinear Structural Analysis for Buildings"
CIVE 603: "Structural Dynamics"

Currently used from graduate students at Stanford University in the following courses:

CEE 385: "Performance-Based Earthquake Engineering", (Offered by Prof. E. Miranda)
CEE 288: "Earthquake Hazard and Risk Analysis", (Offered by Prof. A. Kiremidjian)

Administrative Roles

2011-present Member, Undergraduate Studies Committee, Department of Civil Engineering, McGill University
2011-2012 Member, Faculty and Student Advisory Group for the development of a new learning management system (LMS) for McGill University
2011-present Member, Graduate Studies Committee, Department of Civil Engineering, McGill University
2012-present Member, Education and Research Committee across Canada, Canadian Society of Civil Engineering
2010-present Member, Undergraduate Student Advisory Committee for U1 Civil Engineering Students, McGill University
2010-present Chair, Undergraduate and Graduate Student-Staff Committee, McGill University
2010-present Chair, Construction Colloquium Committee
2010-present Faculty Advisor of the Canadian Society of Civil Engineering (CSCE) Student Chapter
2014-present Chair, Computer Committee, Department of Civil Engineering, McGill University
2014-present Undergraduate Student Recruitment, Faculty of Engineering, McGill University

Skills

Languages: Native Greek, fluent in written and spoken English
High level of computer knowledge (Java, C++, FORTRAN, Visual Basic Applications (VBA), MySQL, php, html, MATLAB, DADiSP, ABAQUS, ANSYS, NASTRAN, Solidworks, AutoCAD) and Structural Engineering Software Packages (SAP, ETABS, RAM Perform CSI)