

Masahiro Kurata



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Nationality:

Japanese

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(As of June, 2020)

EDUCATIONS

PhD. in Civil and Environmental Engineering, Georgia Institute of Technology, Georgia, USA
Completion Date: September 2009, Graduation Date: December 2009
Dissertation: *Strategies for Rapid Seismic Hazard Mitigation for Sustainable Infrastructure Systems*
Advisors: Dr. Reginald DesRoches and Dr. Roberto T. Leon
Master of Science, Georgia Institute of Technology, Georgia, USA
Date: December 2007
Master of Architectural System, Kyoto University, Kyoto, Japan
Date: March 2005
Thesis: *Test and Analysis of Steel Column Bases for Assessment of Earthquake Responses of Steel Moment Frames*
Advisors: Dr. Masayoshi Nakashima and Dr. Keiichiro Suita
Master of Earthquake Engineering, University of Pavia, Pavia, Italy: Centre for Post-Graduate Training and Research in Earthquake Engineering and Engineering Seismology (ROSE School)
Date: June 2004
Thesis: *Effect of Column Base Behavior on Seismic Response of Steel Moment Frames*
Advisor: Dr. Masayoshi Nakashima and Dr. Rui Pinho
Bachelor of Architectural Engineering, Kyoto University, Kyoto, Japan
Date: March 2002
Advisor: Dr. Keiichiro Suita and Dr. Masayoshi Nakashima

RESEARCH AREAS

Structural Engineering, Earthquake Engineering, Seismic Rehabilitation, Structural Health Monitoring, Sustainable structural system

WORK

EXPERIENCES

Fellow, H3
Date: July 2015 – current
Associate Professor, Kyoto University
Date: January 2015 – current
Assistant Professor, Kyoto University
Date: October 2011 – December 2014
Post-doctorate Research Fellow, University of Michigan
Date: September 2009 – September 2011
Instructor, Georgia Institute of Technology
Undergraduate Level Class: Statics, Date: Spring 2009 and Summer 2009
Graduate Research Assistant, Georgia Institute of Technology
Date: August 2005 - May 2009
Graduate Teaching Assistant, Georgia Institute of Technology
Graduate Level Class: Earthquake Engineering, Date: Spring 2007 and Spring 2008

HONOUR and AWARDS

Top Downloaded Paper 2018-2019 in Earthquake Engineering and Structural Dynamics “Fragility function development and seismic loss assessment of expansion joints”, 2020
Encouragement Prize of AIJ, 2017
Best Speaker Award, the 11th Japan-America Frontier of Engineers jointly organized by Engineering Academy of Japan and National Science Foundation, Oct. 31, 2012
Invited Speaker, the 11th Japan-America Frontier of Engineers, Oct. 29-31, 2012
Invited Speaker, Engineers Week 2011, February 26, 2011.
Distinguished Master Thesis Award, Kyoto University Architectural Association (Kenchiku Kai), 2006
Japan Society for the Promotion of Science Doctoral Fellowship, 2005
Japanese Student Services Organization Scholarship for Master study at Kyoto Univ., 2002 and 2004
Instituto Universitario di Studi Superiori Scholarship for Master study at ROSE School, 2003
The Japan Iron and Steel Federation Research Award for Master study, 2004

**PROFESSIONAL
AFFILIATION**

Architectural Institute of Japan (AIJ), Japan
Japan Society of Steel Construction (JSSC), Japan
Earthquake Engineering Research Institute (EERI), CA, USA
American Society of Civil Engineers (ASCE), VA, USA
American Institute of Steel Construction (AISC), IL, USA
International Society for optics and photonics (SPIE), USA
International Association for Bridge and Structural Engineering (IABSE), Switzerland

ACTIVITIES

Professional:

2009 – Current Committee, Structural and Health Monitoring and Control Committee
Engineering Mechanics Institute, American Society of Civil Engineers, 2013
2013 – Current Staff, Central Office, International Association of Earthquake Engineering
2013 – Current Committee, Program Committee for SPIE Smart Structures /NDE
2012 – 2016 Committee, Structural Health Monitoring Sub-Committee of Special Project for
Reducing Vulnerability for Urban Mega Earthquake Disasters (ii) Maintenance and
Recovery of Functionality in Urban Infrastructures, MEXT
2013 Executive Committee Chairperson and Facilitator, NEES/E-Defense Collaborative
Earthquake Research Program 10th Planning Meeting
2014 – 2015 Committee, Working Group to Prepare English Versions of Design Provisions
for Steel Structures, AIJ
2014 – Current Committee, Committee on Stability Design of Steel Structures, AIJ
2015 – 2017 Committee, Committee to Prepare English Versions of Design Provisions
for Steel Structures, AIJ
2014 – 2015 Executive Secretary, Executive Committee for IABSE conference in Nara 2015
2014 – 2015 Committee, Scientific Committee for IABSE conference in Nara 2015
2014 – Current Staff, Central Office, Group of Young Earthquake Engineers
2015 – Current Staff, NPO International Association of Earthquake Engineering
2015 – 2017 Executive Secretary, Special Task Committee for Educating Architects
and Architectural Engineers Capable of Surviving Globalization, AIJ
2015 Leading Facilitator, Japan-U.S. Planning Meeting for Collaborative Researches on
Earthquake Engineering at E-Defense
2015 – 2016 Committee, WG for Evaluating Performance of Buckling Suspected Steel Members
2016 – 2018 Committee, Committee on Ultimate State Evaluation and Damage Detection of
Steel Buildings, Japan Society of Steel Construction
2016 – 2019 Treasurer, Steel Structures Group, AIJ Kinki Branch
2016 – 2018 Ordinary Councilor, AIJ Kinki Branch
2017 Committee, Scientific Committee for ANCRiSST2017
2017 – Current Evaluation Committee, Japan Steel-fabrication Appraisal Organization
2017 – 2022 Chair of Sub-committee, A Project on Holistic Resilience Enhancement in the
Tokyo Metropolitan Area: - Evaluation of special equipment and functionality loss
for disaster-base facilities
2017 – Current Committee, Committee on Monitoring of Steel Structures, Japan Society of Steel
Construction
2018 – Current Committee, City Master Plan Committee of Joyo City Council
2018 – 2020 Delegate, AIJ Kinki Branch

Journal Service:

2016 – 2017 Computer-Aided Civil and Infrastructure Engineering, Guest Editor for 2017
Special Issue on "Innovations in Structural Health Monitoring"
2017 – 現在 AIJ Japan Architectural Review, Editorial Board Member
2017 – 2018 Computer-Aided Civil and Infrastructure Engineering, Guest Editor for 2018
Special Issue on "Innovations in Structural Health Monitoring"
2018 – 2019 Computer-Aided Civil and Infrastructure Engineering, Guest Editor for 2019
Special Issue on "Innovations in Structural Health Monitoring"
2019 – 2023 Earthquake Engineering and Structural Dynamics, Associate Editor

Social:

President, Earthquake Engineering Research Institute, Georgia Tech Student Chapter, 2007
Vice President, Earthquake Engineering Research Institute, Georgia Tech Student Chapter, 2006
President, Georgia Tech Japan Society, 2007 and 2008

Panelist, Briefing Sessions in Kyoto University, Japanese Graduate Student Association in the US, 2012, 2013, 2014

LANGUAGES

English: fluent in writing, reading, and speaking
Italian: fair for daily communications
Japanese: native

SEMINAR AND TALK

Holistic Seismic Assessment of Critical Buildings with due Consideration of Non-Structural Components and Equipment, Seminar at National Institute of Standards and Technology, USA, March 21, 2019.

Connections in Steel Structures with HSS columns: Design, Fabrication and Researches in Japan, XV International Symposium of Steel Structure, Instituto Mexicano de la Construcción en Acero (IMCA), Puerto Vallarta, Jalisco, Mexico, March 7, 2019

新生児看護学会の教育講演会：災害について一緒に考えよう 備えあれば憂いなし 備えるべき 『知識』 『意識』 “大地震時に病院は－特に NICU は－” January 27, 2018 (in Japanese)

“Damage Prevention, Evaluation and Decision-Making: Challenges in Structural Engineering against Megaquakes,” Departmental Seminar, University of Canterbury, September 11, 2017

“Damage Evaluation and Residual Performance Estimates of Steel Structures after Earthquakes,” Departmental Seminar, University of Auckland, September 7, 2017

“Needs on Seismic Retrofit of Steel Buildings Considering Consequences”, 2nd Huixian International Forum on Earthquake Engineering for Young Researchers, August 19-21, 2016, Beijing, China

“余震による事業中断を考慮した重要施設の事業継続性評価”, IT 強震計研究会第 26 回定例会 January 24, 2017 (in Japanese)

地域の拠点建物の使用継続性を担保する, 第 22 回京都大学宇治キャンパス産学交流会, Dec. 6, 2016 (in Japanese)

“熊本地震の教訓：建築構造の観点から”, 南防火協会講演会, Sept 21, 2016 (in Japanese)

“Advanced Architecture B”, invited lecture for graduate level class, graduate school of architecture, Waseda University, November 26, 2014

“Structural Health Monitoring and Decision Making of Seismically Damaged Buildings,” the Special Seminar at the 29th General Assembly Meeting, the Committee of Earthquake Observation and Research in the Kansai Area: CEORKA, July 1, 2014.

“Responses to Non-Physical Performance Requirements in Structural Engineering,” Seminar for the Structural Control Committee (157 Committee), Japan Society for the Promotion of Science, January 14, 2014.

“Ultimate Behavior of Hollow Steel Section Columns and Collapse Margin of Steel Buildings,” Seminar for Steel Research Section, Kinki Branch, Architectural Institute of Japan, January 1, 2014.

“Development of Local Damage Detection Techniques for Improving Earthquake Preparedness of Steel Structures,” Global COE Program: International Urban Earthquake Engineering Center for Mitigating Seismic Mega Risk, Center for Earthquake Engineering (CUEE), Tokyo Institute of Technology, February 23, 2013.

“Post-Earthquake Damage Screening of Structures,” the 11th Japan-America Frontiers of Engineering (JAFOE), Engineering Academy of Japan (EAJ) and National Science Foundation (NSF), Arnold and Mabel Beckman Center in Irvine, California, October 29-31, 2012.

“Resilient City: Functions Required for Structural Engineering and Design,” Closed Seminar for Structural Health Monitoring, Steel Structure Development Center, Steel Research Laboratories, Nippon Steel Corporation, March 15, 2012

“Smart Bridges...How Wireless Sensors Can Detect a Sick Bridge: Multi-Scale Approaches to Monitoring and Assessing the Structural Integrity of Bridges Using Next-Generation Sensor Technologies,” Engineers Week 2011: Dinner Banquet Program, Windsor Park Conference Center, Mishawaka, IN, February 26, 2011.

“Strategies for Seismic Hazard Mitigation in Sustainable Urban Systems through Large Scaling Testing”, Earthquake Protection System, California, June 19, 2009

“Strategies for Seismic Hazard Mitigation in Sustainable Urban Systems through Large Scaling Testing”, Department of Civil and Environmental Engineering, University of Michigan, May 26, 2009

“Strategies for Seismic Hazard Mitigation in Sustainable Urban Systems through Large Scaling Testing”, Department of Civil and Environmental Engineering, Oregon State University, April 8, 2009

PATENT

“Cable Bracing System with Central Energy Dissipater”, *U.S. Provisional Patent Application*, GTRC ID 4754 (elapsed in April 17, 2010)

PUBLICATIONS

SCI Journal Papers (39):

1. Zeng, X., Deng, K., Kurata, M., Duan, J., Zhao, C. [2020]. “Seismic performance evaluation of damage-controlled composite steel frame with flexible-gel-covered studs,” *Engineering Structures*, 219, 110855, <https://doi.org/10.1016/j.engstruct.2020.110855>
2. Skalomenos, K.A., Kurata, M., Nishiyama, M. [2020]. “Induction-heat treated steel braces with intentional eccentricity,” *Engineering Structures*, 211, 110461, <https://doi.org/10.1016/j.engstruct.2020.110461>,
3. Liu, Y., Tani, M., Kurata, M., Watase, C., Nishiyama, M. [2020]. “Study on I-Shaped Section Steel Braces Partially Strengthened by Induction Heating,” *Engineering Structures*, 210, 110341, <https://doi.org/10.1016/j.engstruct.2020.110341>.
4. Qi, L., Kunitomo, K., Kurata, M., Ikeda, Y. [2020]. “Investigating the Vibration Properties of Integrated Ceiling Systems Considering Interactions with Surrounding Equipment,” *Earthquake Engineering and Structural Dynamics*, 1– 22. <https://doi.org/10.1002/eqe.3264>
5. Marzano, G., Skalomenos, K.A., Kurata, M. [2020]. “Multi Damage-State Retrofit of Steel Moment-Resisting Frames with Minimal Disturbance Arm Damper,” *Journal of Structural Engineering* (Accepted in January, 2020).
6. Deng, K., Zeng, X., Kurata, M., Zhao, C., Onishi, K. [2020]. “Damage Control of Composite Steel Beams Using Flexible Gel-Covered Studs,” *Journal of Structural Engineering*, 146 (3), 10.1061/(ASCE)ST.1943-541X.0002534
7. Otsuki, Y., Kurata, M., Skalomenos, K.A., Ikeda, Y. [2019]. “Fragility Function Development and Seismic Loss Assessment of Expansion Joints,” *Earthquake Engineering and Structural Dynamic* 48 (9), 1007-1029, <https://doi.org/10.1002/eqe.3171>.
8. Li, X., Kurata, M. [2019]. “Probabilistic updating of fishbone model for assessing seismic damage to beam-column connections in steel moment-resisting frames,” *Computer-Aided Civil and Infrastructure Engineering*, 34(9), pp. 790-805, <https://doi.org/10.1111/mice.12429>.
9. Otsuki, Y., Kurata, M., Skalomenos, K.A., Ikeda, Y. [2019]. “Damage sequence and safety margin assessment of expansion joints by shake table testing,” *Earthquake Engineering and Structural Dynamic*, 48: 3-26. <https://doi.org/10.1002/eqe.31200>.
10. Zhang, L., Marzano, G., Sasaki, Y., Kurata, M., Skalomenos, K. [2018]. “Force Redistribution of Steel Moment-Resisting Frame Retrofitted with a Minimal Disturbance Arm Damper,” *Soil Dynamics and Earthquake Engineering*, 114, pp. 159-173, <https://doi.org/10.1016/j.soildyn.2018.06.035>

11. Skalomenos, K.S., Kurata, M., Shimada, H., Nishiyama, M. [2018]. "Use of Induction-Heating in Steel Structures: Material Properties and Novel Brace Design," *Journal of Constructional Steel Research*, 148, pp. 112-123, <https://doi.org/10.1016/j.jcsr.2018.05.016>
12. Skalomenos, K.S., Nakashima, M., Kurata, M. [2018]. "Seismic Capacity Quantification of Gusset-Plate Connections to Fracture for Ductility-Based Design," *Journal of Structural Engineering*, 144(10), [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002193](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002193)
13. Zhang, L., Kurata, M., Marino, E.M., Takeda, T. [2018]. "Development of a Minimal-Disturbance Rehabilitation System for Sustaining Bidirectional Loading," *Journal of Structural Engineering*, 144(6) [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002089](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002089).
14. Deng, D., Zhao, C., Wang, K., Kurata, M., Wang, T. [2018]. "Numerical Study on a Fully-prefabricated Damage-tolerant Beam to Column Connection for an Earthquake-resilient Frame," *Engineering Structures*, 159(15), pp. 320-331, <https://doi.org/10.1016/j.engstruct.2018.01.011>.
15. Skalomenos, K.S., Kurata, M. and Nakashima, M. [2018]. "On-line Hybrid Test Method for Evaluating the Performance of Structural Details to Failure," *Earthquake Engineering and Structural Dynamic*, 47(3), pp. 555-572, <https://doi.org/10.1002/eqe.2979>
16. Matarazzo, T.J., Kurata, M., Nishino, H., Suzuki, A. [2018]. "Post-earthquake Strength Assessment of a Steel Moment-Resisting Frame with Multiple Beam-Column Fractures using Local Monitoring Data," *Journal of Structural Engineering*, Vol. 144(2), [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001967](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001967).
17. Burton, A., Lynch, J.P., Kurata, M., Law, K. [2017]. "Fully Integrated Carbon Nanotube Composite Thin Film Strain Sensors on Flexible Substrates for Structural Health Monitoring," *Smart Materials and Structures*, Vol. 26(9).
18. Suzuki, A., Kurata, M., Li, X., and Shimmoto, S. [2017]. "Residual Structural Capacity Evaluation of Steel Moment-Resisting Frames using Dynamic-strain-based Model Updating Method," *Earthquake Engineering and Structural Dynamics*, <https://doi.org/10.1002/eqe.2882>.
19. Inamasu, H., Skalomenos, AK., Hsiao, P-C., Hayashi K., Kurata, M., and Nakashima, M. [2017]. "Gusset plate connection for Naturally Buckling Brace," *Journal of Structural Engineering*, 143(8), [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001794](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001794).
20. Lavan, O., Sato, M., Kurata, M., Zhang, L. [2017]. "Local Deformation Based Design of Minimal-Disturbance Arm Damper for Retrofitting Steel Moment-Resisting Frames," *Earthquake Engineering and Structural Dynamics*, 46(9), <https://doi.org/10.1002/eqe.2866>.
21. Barbagallo, B., Hamashima, I., Hu, H., Kurata, M., Nakashima, M. [2017]. "Base Shear Capping Buildings with Graphite-Lubricated Bases for Collapse Prevention in Extreme Earthquakes," *Earthquake Engineering and Structural Dynamics*, 46(6), <https://doi.org/10.1002/eqe.2842>.
22. Li, X., Kurata, M., Suzuki, A. [2017]. "Decoupling Algorithm for Evaluating Multiple Beam Damages in Steel Moment-resisting Frames," *Earthquake Engineering and Structural Dynamics*, 46(7), pp. 1045-1064. <https://doi.org/10.1002/eqe.2841>.
23. Zhang, Y., Kurata, M., Lynch, J.P. [2017]. "Long-Term Modal Analysis of Wireless Structural Monitoring Data from a Suspension Bridge under Varying Environmental and Operational Conditions: System Design and Automated Modal Analysis," *Journal of Engineering Mechanics*, 143(4), [https://doi.org/10.1061/\(ASCE\)EM.1943-7889.0001198](https://doi.org/10.1061/(ASCE)EM.1943-7889.0001198), 04016124.
24. Yamaguchi, M., Kurata, M., Miyazawa, M. [2017]. "Building Damage Estimates using Slowness Change in Propagating Waves," *Journal of Structural Engineering*, 143(4), [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001683](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001683), 04016200.
25. He, L., Togo, T., Hayashi, K., Kurata, M., Nakashima, M. [2016]. "Cyclic Behavior of Multi-Row Slit Shear Walls Made from Low Yield Point Steel," *Journal of Structural Engineering* 142(11), [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001569](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001569), 04016094.

26. Bai, Y., Kurata, M., Nakashima, M., Florez, J. [2016]. “Macromodeling of Crack Damage in Steel Beams Subjected to Nonstationary Low Cycle Fatigue,” *Journal of Structural Engineering*, 142(10), [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001536](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001536), 04016076.
27. Li, X., Kurata, M., Nakashima, M. [2016]. “Simplified Derivation of a Damage Curve for Seismically Induced Beam Fracture in Steel Moment-resisting Frames,” *Journal of Structural Engineering*, 141(6), [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001473](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001473), 04016019.
28. Kurata, M., Sato, M., Zhang, L., Lavan, O., Becker, T., Nakashima, M. [2016]. “Minimal-Disturbance Seismic Rehabilitation of Steel Moment-Resisting Frames using Light-weight Steel Elements,” *Earthquake Engineering and Structural Dynamics*, 45(3), pp. 383-400.
29. He, L., Kurata, M., Nakashima, M. [2015]. “Condition Assessment of Steel Shear Walls with Tapered Links under Various Loadings,” *Earthquake and Structure*, 9(4), pp. 767-788, 2015.10.
30. Kurata, M., He, L., Nakashima, M. [2015]. “Steel Slit Shear Walls with Double-Tapered Links Capable of Condition Assessment,” *Earthquake Engineering and Structural Dynamics*, Wiley, 44(8), pp. 1271-1287.
31. Li, X., Kurata, M., Nakashima, M. [2015]. “Evaluating Damage Extent of Fractured Beams in Steel Moment-Resisting Frames using Dynamic Strain Responses,” *Earthquake Engineering and Structural Dynamics*, Wiley, 44(4), pp. 563-581.
32. Nakashima, M., Lavan, O., Kurata, M., Luo, Y. [2014]. “Earthquake Engineering Research Needs in Light of Lessons Learned from the 2011 Tohoku Earthquake,” *Earthquake Engineering and Engineering Vibration*, 13, Suppl.1, pp. 141-149. <https://doi.org/10.1007/s11803-014-0244-y>
33. Shi Y., Kurata, M., Nakashima, M. [2014]. “Disorder and Damage of Base-Isolated Medical Facilities when Subjected to Near-Fault and Long-Period Ground Motions,” *Earthquake Engineering and Structural Dynamics*, Wiley, 43(11), pp. 1683-1701.
34. Shi, Y., Becker, T., Kurata, M., Nakashima, M. [2013]. “ H^∞ Control in the Frequency Domain for a Semi-Active Floor Isolation System,” *Frontiers of Structural and Civil Engineering*, 7(3), pp. 264-275.
35. Kurata, M., Li, X., Fujita, K., Yamaguchi, M. [2013]. “Piezoelectric Dynamic Strain Monitoring for Detecting Local Seismic Damage in Steel Buildings,” *Smart Materials and Structures*. 22, 115002.
36. Kurata, M., Kim, J., Lynch, J., van der Linden, G., Sedarat, H., Thometz, E., Hipley, P., and Sheng, L. [2013]. “Internet-Enabled Wireless Structural Monitoring Systems: Development and Permanent Deployment at the New Carquinez Suspension Bridge,” *Journal of Structural Engineering*, ASCE, 139, pp. 1688–1702.
37. Kurata, M., Leon, T. R., DesRoches, R., and Nakashima, M. [2012]. “Steel Plate Shear Wall with Tension-Bracing for Seismic Rehabilitation of Steel Frames,” *Journal of Constructional Steel Research*, Vol. 71, pp. 92-103.
38. Kurata, M., Leon, T. R., and DesRoches, R. [2012]. “Rapid Seismic Rehabilitation Strategy: Concept and Testing of Cable Bracing with Couples Resisting Damper (CORE Damper),” *Journal of Structural Engineering*, ASCE, Vol 138 (3), pp. 354-362.
39. Kurata, M., Nakashima, M., and Suita, K. [2005]. “Effect of Column Base Behavior on Seismic Response of Steel Moment Frames,” *Journal of Earthquake Engineering*, Imperial College Press, Vol. 9, Special Issue 2, pp. 415-438.

Japanese Journal Papers (20):

1. Marzano, G., Skalomenos, K.A., Kurata, M., Sasaki, Y. [2020] “Fragility Functions for Evaluation on Moment-Resisting Frames Retrofitted with the Minimal Disturbance Arm Damper,” *Journal of Structural Engineering (Kouzou Kougaku)*.
2. Wada, T., Ikeda, Y., Kurata, M., Kashima, T. [2019] “Verification of Method to Evaluate Amplitude-Dependent Natural Frequencies of Steel Buildings using Main Shock Response”, *Journal of Structural Engineering (Kouzou Kougaku)* (in Japanese).

3. Hamashima, I., Kurata, M., Nakashima, M. [2017]. “Slipping Behavior of Base Shear Capping Buildings for Collapse Prevention and Required Maximum Strength,” *Journal of Structural and Constructional Engineering*, AIJ, No.741, p. 1695-1705 (in Japanese).
4. Shiraishi, M., Morii, T., Okada, K., Sugimoto, K., Sato, T., Kurata, M., Tobita, J. [2017]. “Local Damage Detection using Densely Deployed Vibration Sensors and Output Error of Sub-structures,” *Journal of Structural and Constructional Engineering*, AIJ, No.736, p. 1187-1197 (in Japanese).
5. Togo, T., He, L., Hayashi, K., Kurata, M., Nakashima, M. [2016]. “Seismic behavior and design of assembled slit shear walls using low yield point steel,” *Journal of Structural and Constructional Engineering*, AIJ, No.720, pp. 335-343 (in Japanese).
6. Shimamoto, S., Kurata, M., Suzuki, A., Li, X. [2015]. “Immediate Decision Support on Re-occupancy of Earthquake-Affected Buildings Based on Assessment of Aftershock Risk,” *Journal of Social Safety Science*, Institute of Social Safety Science, No.27, pp. 275-281, 2015.11 (in Japanese).
7. Hayashi, K., Nishi, R., Luo, Y., Kurata, M., Nakashima, M. [2015]. “Restoring Force Characteristics and Ultimate Behavior of Concrete Filled Steel Tube Columns using Ultra-High Strength Steel H-SA700,” *Journal of Structural and Constructional Engineering*, AIJ, 80 (718), pp. 2001-2009. 2015.12 (in Japanese).
8. Kurata, M., Suzuki, A., Minegishi, K., Nakashima M. [2015]. “Integrity Assessment of Steel Beam-Column Connections using Ambient-Based Inner-Force Estimates,” *Journal of Structural and Constructional Engineering*, AIJ, 713, pp.1045-1054 (in Japanese).
9. Ito, M., Kazuhiro, H., Taniguchi Y., Kurata, M., Nakashima, M. [2015]. “Design Procedure for Seismic Retrofit using Stud-Type Dampers in Consideration of Strength and Stiffness of Surrounding Frames,” *Journal of Structural and Constructional Engineering*, AIJ, 711, pp. 811-818 (in Japanese).
10. Togo, T., He, L., Hayashi, K., Kurata, M., Nakashima, M. [2015]. “Development of Multi-Row Slit Shear Walls using Low Yield Point Steel”, *Journal of Structural and Constructional Engineering*, AIJ, 709, pp. 501-510, 2015.3 (in Japanese).
11. Kurata, M., Sato, M., Zhang, L., Nakashima, M. [2015]. “Seismic Rehabilitation of Steel Frames with Minimal-Disturbance using Tension-Rods and Steel Bending Plates”, *Journal of Structural and Constructional Engineering*, AIJ, 709, pp.491-500 (in Japanese).
12. Hayashi, K., Nishi, R., Enomoto, R., Kurata, M., Nakashima, M. [2014]. “Performance of Concrete Filled Double-Skin Tubes Using Ultra-Changes in Vibration Characteristics of Steel Beam-Column Connections with Composite Beams under Cyclic Loading,” *Journal of Structural and Constructional Engineering*, AIJ, 705, pp. 1699-1707 (in Japanese).
13. Kurata, M., Minegishi, K., Tang, Z., Nakashima, M. [2014]. “Changes in Vibration Characteristics of Steel Beam-Column Connections with Composite Beams under Cyclic Loading,” *Journal of Structural and Constructional Engineering*, AIJ, 703, pp.1271-1278 (In Japanese).
14. Yamaguchi M., Kurata, M., Miyazawa, M., Nozawa, T. [2014]. “Relation between Simulated Damage of Steel Frame and Delay in Wave Propagation Identified by Seismic Interferometry using Ambient Noise,” *Journal of Structural Engineering (Kouzou Kougaku)*, 60B, pp. 281-288 (In Japanese).
15. Ito, M., Taniguchi, Y., Hayashi, K., Kurata, M., Nakashima, M. [2014]. “Evaluation of Stiffening Force Applied to Wood Panels Used as Restrainers of Slitted Steel Shear Wall,” *Journal of Structural Engineering (Kouzou Kougaku)*, 60B, pp. 399-405 (In Japanese).
16. Ito, M., Hayashi, K., Taniguchi, Y., Kurata, M., Nakashima, M. [2013]. “Design Procedure for Panels Stiffening Steel Shear Walls with Slits,” *Journal of Structural and Construction Engineering*, Vol 687, pp. 987-996 (In Japanese).

17. Kurata, M., Kanao, I., Liu D., and Nakashima, .M. [2007]. “Influence of Local Buckling on Plastic Rotation Capacity of Steel Box Column Subjected Cyclic Loading,” *Journal of Structural and Constructional Engineering*, AIJ, 613, pp. 155- 161 (In Japanese).
18. Yamamoto, R., Kurata, M., Nagae, T., Terada, T., Sutia, K., and Nakashima, M. [2007]. “Cyclic loading test and strength evaluation (Hysteretic behavior and strength capacity of shallow-embedded steel column bases part 1).” *Journal of Structural and Constructional Engineering*, AIJ, 613, pp. 147-153 (In Japanese).
19. Kurata, M., Nakashima, M., and Suita, K. [2005]. “Test on Large Cyclic Deformation of Steel Tube Columns Having Fixed Column Bases,” *Journal of Structural and Constructional Engineering*, AIJ, 598, pp. 149-154 (In Japanese).
20. Zhou, F., Suita, K., Matsumiya, T., and Kurata, M. [2004]. “Tests on Steel Column Bases with T-stub Connections,” *Journal of Structural and Constructional Engineering*, AIJ, 581, pp. 117-125.

Conference Papers with Abstract Review (51):

1. Shimada, H., Inamasu, H., Skalomenos, K., Kurata, M. [2018]. “Evaluation of Design Equations of Steel Braces with An Intentional Eccentricity,” *Journal of Constructional Steel*, Japanese Society of Steel Construction, 27
2. Kurata, M., Li, X., Matarazzo, T. “Dynamic-Strain-based Damage Evaluation of Field-welded Beam-to-Column Connections in Steel Frames,” The 7th World Conference on Structural Control and Monitoring, July 23-25, 2018
3. Li, X., Kurata, M. “Seismic Damage Assessment of a Full-scale E-Defense Tested Steel Building Using Limited Acceleration Measurements,” The 7th World Conference on Structural Control and Monitoring, July 23-25, 2018
4. Skalomenos, K.A., Kurata, M., Fukutomi, Y., Nishiyama, M., “Evaluation of Cyclic Behavior of Steel Braces with Stronger Middle Length Treated by Induction Hardening,” 11th US National Conference on Earthquake Engineering, June 25-29, 2018
5. Y. Otsuki, K. Buyco, M. Kurata and M. Speicher, “Feasibility Study on Multi-Code Seismic Evaluation of a Landmark Building,” 11th US National Conference on Earthquake Engineering, June 25-29, 2018
6. Kurata, M., Hitomi, M., Shmmoto, S., Ohtsuru, S., Shimoto, M., Cho, K., Sugiyama, O., Aida, S. “Hearing and Analysis of Hospital Evacuation after the 2016 Kumamoto Earthquake,” 16th European Conference on Earthquake Engineering, June 18-21, 2018
7. Skalomenos, K., Kurata, M., Shimada, H., Nishiyama, M. “Braces with Intentional Eccentricity and Partial Cross-Section Strength Enhancement,” 16th European Conference on Earthquake Engineering, June 18-21, 2018
8. Sullivan, T.J., Arifin, F.A., MacRae, G.A., Kurata, M., Takeda, T. “Cost-Effective Consideration of Non-Structural Elements: Lessons from the Canterbury Earthquakes,” 16th European Conference on Earthquake Engineering, June 18-21, 2018
9. Arifin, F.A. Sullivan, T.J., MacRae G.A., Mulligan, J., Kurata, M., Takeda, T. “Evaluating the Benefits of Retrofitting Vulnerable Non-Structural Components: A Case Study,” *NZSEE Conference 2018*, April. 13-15, 2018
10. Marzano, G., Zhang, L., Sasaki, Y., Kurata, M. “Minimal-Disturbance Arm Damper Retrofitting: Evaluation of Retrofit Effect Using Multi-Span Steel Frame Specimens,” *Key Engineering Materials*, 763, 1113-1120, 2018.2
11. Skalomenos, K.A., Takeda, T., Kurata, M., Nakashima, M. “On-Line Testing of Steel Brace Connections Using Non-Linear Substructuring and Force-Displacement Combined Control,” *Key Engineering Materials*, 763, 510-517, 2018.2
12. Skalomenos, K.A., Shimada, H., Kurata, M., Nakashima, M. “Feasibility of hybrid simulation for testing steel connections of braces with intentional eccentricity,” *Eurosteel 2017*, Sept. 13-15, 10.1002/cepa.89, 2017.

13. Barbagallo, F., Hamashima, I., Hu, H., Zhang, L., Kurata, M., Nakashima, M. "Experimental Investigation On Dynamic Behaviour Of Free-Standing Frames With Friction," *Proceedings of the 16th World Conference on Earthquake Engineering (16WCEE)*, January 2017.
14. Takeda, T., Sato, M., Lavan, O., Kurata, M. "Application of Local-Deformation Based Design Method to Various Steel Frames," *Proceedings of the 16th World Conference on Earthquake Engineering (16WCEE)*, January 2017.
15. Zhang, L., Kurata, M., Sato, M., Takeda, T. "Design and Physical Testing Of Biaxial Minimal-Disturbance Arm Damper For Seismic Rehabilitation," *Proceedings of the 16th World Conference on Earthquake Engineering (16WCEE)*, January 2017.
16. Suzuki, A., Iervolino, I., Kurata, M., Shimmoto, S. "State-Dependent Fragility Curves for Aftershock Seismic Risk Assessment of Japanese Steel Frames" *Proceedings of the 16th World Conference on Earthquake Engineering (16WCEE)*, January 2017.
17. Skalomenos, K., Inamasu, H., Shimada, H., Kurata, M., Nakashima, M. "Experimental Investigation of Steel Braces Installed with Intentional Eccentricity Using Gusset Plate Connections," *Proceedings of the 16th World Conference on Earthquake Engineering (16WCEE)*, January 2017.
18. Inamasu, H., Skalomenos, K., Hsiao, P-C., Hayashi, H., Kurata, M., Nakashima, M. "Experimental Investigation of Bolt-Configured Naturally Buckling Braces with Gusset Plate Connections," *Proceedings of the 16th World Conference on Earthquake Engineering (16WCEE)*, January 2017.
19. Burton, A., Kurata, M., Nishino, H., Lynch, J.P. "Fully integrated patterned carbon nanotube strain sensors on flexible sensing skin substrates for structural health monitoring," *Proc. SPIE 9803, Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems*, March, 2016.
20. Matarazzo, T., Kurata, M., Nakashima, M., and Pakzad, S. System Identification of a Steel Frame Using Defective Sensor Data. *Geotechnical and Structural Engineering Congress 2016*: pp. 897-908, 2016 doi: 10.1061/9780784479742.075
21. Kurata, M., Suzuki, A., Li, X., Nishino, H., Minegishi, K. "Residual performance assessment of steel frames through ambient strain-based model update: application to collapse test of steel frame using shake table," *Proceedings of Engineering Mechanics Institute Conference 2015*, 799, 2015.6. (Abstract only)
22. Zhang, L., Kurata, M., Sato, M., Lavan, O., Nakashima, M. "Design and Application of a Minimal-Disturbance Seismic Rehabilitation Technique Composed of Light-Weight Steel Elements," *8th International Conference on Behavior of Steel Structures in Seismic Areas*, Shanghai, China, July, 2015.
23. Kurata, M., Sato, M., Zhang, L., Becker, T., Lavan, O., Nakashima, M. "Seismic Retrofit of Steel Frames with Minimal-Disturbance," *Proc. IABSE Conference*, Nara, May, 2015.
24. Suzuki, A., Kurata, M., Li, X., Minegishi, K., Tang, Z., Burton, A. "Quantification of seismic damage in steel beam-column connection using PVDF strain sensors and model-updating technique," *Proc. SPIE 9435, Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems*, March, 2015.
25. Togo, T., He, L., Kurata, M., Hayashi, K., Nakashima, M. [2014]. "Improving Performance of a Hysteretic Damper Capable of Structural Condition Assessment," *Journal of Constructional Steel*, Japanese Society of Steel Construction, 22, pp.531-537 (in Japanese).
26. Kurata, M., Tang, Z., Minegishi, K., Shi, Y. [2014]. "Dynamic Characteristics Assessment of Steel Beam-Column Connections with Floor Slab," *Proc. of Tenth U.S. National Conference on Earthquake Engineering*.
27. Burton, A., Minegishi, K., Kurata, M., Lynch, J.P. [2014]. "Free-standing carbon nanotube composite sensing skin for distributed strain sensing in structures," *Proc. SPIE 9061, Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems*, 906123.

28. Minegishi, K., Tang, Z., Kurata, M., Nozawa, T., Nakashima, M. [2013]. "Changes in vibration characteristics of the beam-column connection with seismic damage," *Journal of Constructional Steel*, Japanese Society of Steel Construction, 21, pp.265-270 (in Japanese).
29. Luo, Y., Hayashi, K., Hoki, L., Kurata, M., Nakashima, M. [2013]. Analysis and Design of Steel Beam-to-Column Connections Rehabilitated with SFRCC," *Journal of Constructional Steel*, Japanese Society of Steel Construction, 21, pp.581-586 (in Japanese).
30. He, L., Kurata, M., Fukihara, K., Hayashi, K., Nakashima, M. [2013]. "Dual Functional Steel Slit Shear Wall with X-Shaped Links," *Journal of Constructional Steel*, *Japanese Society of Steel Construction*, 21, pp.679-684 (in Japanese).
31. Li, X., Kurata, M., Fujita, K., Yamaguchi, M., Nakashima, M. [2013]. "Detection of Local Damage in Steel Moment-Resisting Frames Using Wireless PVDF Sensing," *Journal of Constructional Steel*, Japanese Society of Steel Construction, 21, pp.259-264 (in Japanese).
32. Li, X., Kurata, M., Nakashima, M. [2013]. "Dynamic Strain Monitoring for Detecting Fracture Damage at Beam-ends in Steel Moment-Resisting Frames," *Proc. of SHMII-6*, December, 2013.
33. He, L., Fukihara, K., Kurata, M., Hayashi, K., Nakashima, M. [2013]. "Steel Plate Shear Wall with X-Shaped Links as a Structural Component Capable of Condition Assessment," *Proc. of PSSC*, October, 2013.
34. Kurata, M., Fujita, K., Li, X., Yamazaki, T., Yamaguchi, M. [2013]. "Development of cyber-based autonomous structural integrity assessment system for building structures," *Proc. of SPIE Vol. 8692*, 86924E.
35. Kurata, M., Li, X., Fujita, K., He, L., Yamaguchi, M. [2013]. "PVDF Piezo Film as Dynamic Strain Sensor for Local Damage Detection of Steel Frame Buildings," *Proc. of SPIE Vol. 8692*, 86920F.
36. Okamura, T., Kurata, M., and Nakashima, M. [2012]. "Development of Slitted Steel Shear Walls Capable of Detecting Damage States," *Proceeding of 15th World Conference of Earthquake Engineering*, September.
37. Mosavi, A.A., Sedarat, H., Kurata, M., Zhang, Y., Emami-Naeini, A., Jacob, V., and Lynch, J.P. [2012]. "Finite Element model updating of a long-span suspension bridge using measured vibration data." NDE/NDT for Highways and Bridges: *Structural Materials Technology (SMT)*, ANST, New York.
38. Zhang, Y., Kurata, M., Lynch, J.P., Van der Linden, G., Sederat, H., and Prakash, A. [2012]. "Distributed Cyberinfrastructure Tools for Automated Data Processing of Structural Monitoring Data," *Proc. SPIE* 8347.
39. Kurata, M., Lynch, J. P., van der Linden, G. W., Hipley, P., Sheng, L-H. [2011]. "Long-Term Monitoring Systems for the Monitoring of Long-Span Bridges," *International Symposium on Innovation & Sustainability of Structures in Civil Engineering*, Xiamen University, China.
40. Okamura, T., Kurata, M., Nakashima, M. [2011]. "Enhancement of Energy Dissipation Performance of Steel Plate Shear Wall with Damage Assessment Capability," *Journal of Constructional Steel*, Japanese Society of Steel Construction, 19, pp.721-728 (in Japanese).
41. Kurata, M., Kim, J-H., Zhang, Y., Lynch, J., P., van der Linden, G. W., Jacob, V., Thometz, E., Hipley, P., Sheng, L-H. [2011]. "Long-Term Assessment of an Autonomous Wireless Structural Health Monitoring System at the New Carquinez Suspension Bridge," *SPIE Smart Structures/NDE*, San Diego, CA, March.
42. Kurata, M., Lynch J. P., Linden VDG., Hipley P., and Sheng L-H. [2010] "Keynote: APPLICATION OF AN AUTOMATED WIRELESS STRUCTURAL MONITORING SYSTEM FOR LONG-SPAN SUSPENSION BRIDGES," *Proceeding of QNDE, America Institute of Physics*, San Diego, CA, July.
43. Kurata, M., J.H., Lynch, J. P., Law, K.H., and Salvino, L. W. [2010]. "Probabilistic Model Updating Algorithm for Fatigue Damage Detection in Aluminum Hull Structures," *Proceedings of the*

ASME 2010 conference on Smart Materials, Adaptive Structures and Intelligent Systems, Philadelphia, PA, USA, September 28-October 1.

44. Kurata, M., Kim, J.H., Lynch, J. P., Law, K.H., and Salvino, L. W. [2010]. "Fatigue Health Monitoring of Aluminum Hull Structures with Model-Based Damage Detection Technique," *Engineering Mechanics Conference*, Los Angeles, CA, August 8-11.
45. Kurata, M., Lynch, J., P., van der Linden, G., W., Jacob, V., and Sheng, L-H. [2010] "Preliminary Study of a Wireless Structural Monitoring System for Monitoring the New Carquinez Suspension Bridge," *5th world conference on structural control and monitoring*, Tokyo, Japan, July 12-15.
46. Kurata, M., Lynch, J., P., Galchev, T., Flynn, M., Hipley, P., Jacob, V., Linden, VDG., Mortazawi, A., Najafi, K., Peterson, R., P., Sheng, L-H., Sylvester, D., and Thometz, E. [2010] "A Two-Tiered Self-Powered Wireless Monitoring System Architecture for Bridge Health Management," *SPIE Smart Structures / NDE*, San Diego, CA, March 7-11.
47. Kurata, M., Leon, R., DesRoches R., Nakashima, M. [2010]. "Testing of Narrow Steel Plate Shear Wall with Bracing for Rapid Seismic Rehabilitation," *9th U.S. National and 10th Canadian Conference on Earthquake Engineering*, Toronto, Canada.
48. Kurata, M., Leon, R., and DesRoches R. [2009]. "Proof of Concept Testing of Cable Bracing System with Rotating Central Energy Dissipater," *Structures Congress 2009*, Austin, Texas.
49. Kurata, M., DesRoches R., and Leon, R. [2008]. "Cable Damping System for Partial Seismic Rehabilitation," *14th World Conference of Earthquake Engineering*, Beijing, China.
50. Ikenaga, M., Matsumiya, T., Kurata, M., Nakashima, M., and Suita, K. [2004]. "Reduction of Residual Deformation of Steel Moment Frames by Means of Self-Centering Connections," *Proceeding of the 1st Symposium on Performance-Based Seismic Design, Japanese Association for Earthquake Engineering*, Tokyo, Japan, pp. 25-28.
51. Ikenaga, M., Matsumiya, T., Kurata, M., Nakashima, M., and Suita, K. [2004]. "Reduction of Residual Deformation of Steel Moment Frames by Means of Self-Centering Connections," *Journal of Constructional Steel, Japanese Society of Steel Construction*, 12 (in Japanese).

Book Chapter and Reports:

AIJ Recommendations for Stability Design of Steel Structures, AIJ, Chapter 5, 2018.2., ISBN978-4-8189-0646-4 (in Japanese)

AIJ Design Standard for Steel Structures Based on Allowable Stress Concept—(2005 Edition), Chapter-11, 2017.9, ISBN 978-4-8189-5002-3 C3052

グローバル時代を生きぬくことができる建築人の育成特別委員会：第2次答申書，分担執筆，日本建築学会，2017年5月15日 (in Japanese)

グローバル時代を生きぬくことができる建築人の育成特別委員会：中間答申書，分担執筆，日本建築学会，2016年3月1日 (in Japanese)

建物の健全度評価のための技術資料—上部構造編—，都市の脆弱性が引き起こす激甚災害の軽減化プロジェクト，サブプロ② 都市機能の維持・回復のための調査・研究，都市機能の維持・回復のための調査・研究プロジェクト運営委員会，2017年3月1日，ISBN 978 - 4 - 9909495 - 3 - 2, (in Japanese)

Kurata, M., Lynch, J.P., Law, K.H., Salvino, L.W., "Topics in Model Validation and Uncertainty Quantification, Volume 4: Chapter 9: Bayesian Model Updating Approach for Systematic Damage Detection of Plate-type Structures," *Proceedings of the 30th IMAC* edited by Simmermacher T., Springer, 2012

Law, K.H., Lynch, J.P., Kurata, M., "Model-Based Structural Health Monitoring of Fatigue Damage Test-Bed Specimens," Final technical report, Office of Naval Research (ONR) Contract Numbers: N00014-10-10613 and N00014-10-1-0384, 15 Nov 2011.

Posters:

Kurata, M. “Post-Earthquake Damage Screening of Structures,” the 11th Japan-America Frontiers of Engineering, Arnold and Mabel Beckman Center in Irvine, California, October 29-31, 2012.

Kurata, M., Zhang, Y., Bergman, J. R., Lynch, J. P., “Autonomous wireless Structural Health Monitoring System at the New Carquinez Suspension Bridge,” *Industrial Advisory Board Meeting*, Engineering Research Center for Wireless Integrated Micro System, November, 2010.

Kurata, M., DesRoches, R., Leon, R., “Strip Metal Sheet Application for Small Size Seismic Rehabilitation of Steel Buildings,” *The 6th Annual NEES Meeting*, Washington D.C. USA, June, 2007.

Kurata, M., Nakashima, M., “Effects of Column Base Behavior on the Overall Response of Steel Moment Frames,” *The 8th National Conference of EERI*, San Francisco, USA, April, 2006.

Other Articles:

Kurata, M., “Ways toward Enjoying Globalization,” contributed article, Japanese Graduate Student Association in the US, Newsletter No. 25, 2015.7.

倉田真宏, 人見真由 : 大震災時の医療サービス継続性評価, 特別寄稿, 京都府臨床工学技士学会誌 2017

FUNDING AWARD Principal Investigator:

The Kajima Foundation, International Collaboration Research, Adaptable Structural Design Considering Local Construction Custom and Quality: Promotion of High-Performance Steel Frames in Mid-South America and Oceania, 2020.4-2022.3

Japan Society for the Promotion of Science, Bi-lateral Collaboration Research (New Zealand, MBIE-RSNZ), Advancement of Seismic Preparedness and Damage Prognosis Procedures of Hospitals, PI: Masahiro Kurata (Kyoto Univ.), Quincy Ma (Univ. of Auckland), 2019.4-2021.3

Sichuan Science and Technology Program (International collaborative project), Grant No. 2019YFH0139. Title: Seismic Performance Evaluation of Damage-Controlled Composite Steel Frame using Flexible-Gel-Covered Studs, Project leader in China side: Kailai Deng in SWJTU, Project leader in Japan side: Masahiro Kurata in DPRI, 2019.1.30 – 2021.1.30

Japan Society for the Promotion of Science, Grants-in-Aid for Scientific Research, Young Scientific Research A 16H06108 : Development of Seismic Retrofit Technique and Design Method Capable of Reducing Local Deformation for Vitalizing Building Stocks, 2016-2019.

ERI, Tokyo University and DPRI, Kyoto University, Award for Collaborative Research for ERI, Tokyo University and DPRI, Kyoto University, Real-time Prediction of Building Damage Inciting Cause using Earthquake Early Warning, 2016-2017.

The Japan Iron and Steel Federation, Award for Steel Structure Research and Education: Development of Minimum-Disturbance Seismic Retrofit Technique for Reducing Beam-end Rotations in Steel Buildings

ERI, Tokyo University and DPRI, Kyoto University, Award for Collaborative Research for ERI, Tokyo University and DPRI, Kyoto University, Prediction of Time-dependent Structural Safety based on Residual Performance Monitoring and Aftershock Hazard Analysis, 2014-2015.

Japan Society for the Promotion of Science, Grants-in-Aid for Scientific Research, Young Scientific Research B 26820230 : Structural Integrity Assessment of Earthquake-affected Building using Local Damage Sensing Techniques, 2014-2015.

The Japan Society Seismic Isolation, Award for the related study of base isolation and damping devices: Damping Device with Maximum Deformation Memory for Assisting Visual Inspection of Earthquake-affected Buildings, 2013.

DPRI Kyoto University, General Promotion Research, 21A-05: Development of Monitoring System for Evaluating the Continuous Usage of Damage Buildings, 2012.

Association for Disaster Prevention Research, Award for Young Researchers, 5: Development of Damage Detection Algorithms for Non-homogeneous Sensing Network, 2012.

DPRI Kyoto University, General Research Award for Disaster Mitigation GSP Project: English Lecture Series on Disaster Science, 2012

CO-Principal Investigator / Collaborator:

Collaborative Research: Frame-spine system with Force-Limiting Connections for Low Damage Seismic-Resilient Buildings, National Science Foundation (USA), PI: Larry A. Fahnestock (University of Illinois, Urbana-Champaign), PI of Sub-Contract (Masahiro Kurata), 2019.7-2022.6

Propuestas De Estudio Experimental y Analitico Deconexiones Rigidas de Acero Con Vigas I A Columnahueca Rectangular (Analytical and Experimental Study on Steel Rigid Connections with W Beam – to – Rectangular HSS), Nippon Steel & Sumikin Metal, PI: Tiziano Perea Olvera (Instituto Mexicano de la Construcción en Acero), co-PI: Masahiro Kurata (Kyoto Univ.) and Roberto Leon (Virginia Tech.), 2016-2019

Tokyo Resilience Project “Collection and Synthesis of Data Regarding Combined Structural and Non-structural Performance and Damage”, Theme III Holistic Assessment of Seismic Damage in Medical Facilities -Evaluation of Special Equipment and Functionality Loss in Disaster-Base Facilities, PI: Akira Nishitani (Waseda University), Co-PI (Team leader of Theme III): Masahiro Kurata, 2016.4-2022.3

DPRI Kyoto University, Award for International Research Collaborations: Enabling Smart Retrofit to Enhance Seismic Resilience: Japan and NZ Case Studies, PI: Tim Sullivan (the University of Canterbury), 2014-2015.

ERI, Tokyo University and DPRI, Kyoto University, Award for Collaborative Research for ERI, Tokyo University and DPRI, Kyoto University, Development of Strategic Platform for Evaluating Seismic Risk, PI: Shinichi Matsushima (Kyoto University), 2015-2017.

ERI, Tokyo University and DPRI, Kyoto University, Award for Collaborative Research for ERI, Tokyo University and DPRI, Kyoto University, Profiling of Earthquake and Tsunami Risk Evaluation, PI: Kazuyoshi Nishijima (Kyoto University), 2015-2017.

ERI, Tokyo University and DPRI, Kyoto University, Award for Collaborative Research for ERI, Tokyo University and DPRI, Kyoto University, Development of New Paradigm for Improving Accuracy in Extreme Earthquake Risk Evaluation – Interdependency of Disaster Incentives and Factors Associated with Great Nankai Trough Earthquake –, PI: Shinichi Matsushima (Kyoto University), 2015-2017.

Japan Society of Steel Construction, Award for Young Researchers: Development of Brace End Joints with Pinned Behaviors for Braces with Intended Initial Eccentricity, PI: Hiroyuki Inamasu (Kyoto University), 2015.

DPRI Kyoto University, Award for General Research Collaborations: Real-time Personal Seismic Risk Mitigation via Structure - Specific Early Warning Systems, PI: Iunio Iervolino (University of Naples), 2014-2015.

Japan Society for the Promotion of Science, Grants-in-Aid for Scientific Research, Scientific Research B 25289184 : Comprehensive Studies for Promoting Real-Life Use of Damping Floor System, PI: Yuji Koetaka (Kyoto University), 2013-2015.

Japan Society for the Promotion of Science, Grants-in-Aid for Scientific Research, Scientific Research A 2549078 : Structural Performance and Seismic Design of Free-Standing Steel Buildings, PI: Masayoshi Nakashima (Kyoto University), 2013-2016.

DPRI Kyoto University, Award for General Research Collaborations: Nanoengineered Sensing Skins for Rapid Post-Event Health Monitoring of Steel Frame Structures, PI: Jerome P. Lynch (University of Michigan), 2013-2014

Organizing Workshop/Symposium (Principal Organizer):

DPRI Kyoto University, Award for International Collaborations: Japan-Greece International Workshop by Young Researchers on “Advanced Materials and Technology for Applications to Steel and Composite Steel/Concrete Structures”, 12.7-8, 2017

DPRI Kyoto University, Award for International Collaborations: International Workshop for “DPRI-QuakeCORE Student Forum in Earthquake Engineering”, 2.26-27 2016.

Curriculum Vitae

DPRI Kyoto University, Award for International Collaborations: International Collaboration by Young Researchers in EU and Japan for “Application of Structural Health Monitoring to Historic Buildings in EU and Japan,” 12.19, 2014.

DPRI Kyoto University, Award for International Collaborations: Japan-U.S. Young Researchers and Graduate Students Seminar on “Twenty Years Research Vision - Disaster Mitigation and Life/Business Continuity of Urban Cities Using Large-Scale Structural Testing Data,” 12.11-13, 2013.

DPRI Kyoto University, Award for International Collaborations: International Symposium by Young Researchers for “Advancement of Responses to Seismic Hazards in Tall Buildings using Innovative Sensing Technologies,” 12.18-19, 2012.