

**Masahiro Kurata**



**Address:**

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Disaster Prevention Research Institute  
Gokasho, Uji, Kyoto, JAPAN  
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**Nationality:**

Japanese

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(As of April, 2025)

**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 Systems, 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**

**Visiting Associate Professor, Stanford University**

Date: April, 4 – July 1, 2025

**Instructor, Kyoto Prefectural University**

Date: April 2019 – September 2020

**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 11<sup>th</sup> Japan-America Frontier of Engineers jointly organized by Engineering Academy of Japan and National Science Foundation, Oct. 31, 2012

**Invited Speaker**, the 11<sup>th</sup> 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 – 2016	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
2019.10 – 2021.9	Secretary, Taskforce for youth education and support, AIJ
2019.4 – 2021.3	Committee, WG on Research theme exploration for young engineers, JSSC Kansai
2020.6 – 2021.9	Chair, International WG, Taskforce for youth education and support, AIJ,
2020.4 – 2022.3	Committee, Subcommittee for next generation steel structure design, AIJ
2020.4 – 2022.3	Committee, Committee on Encourage Award selection, AIJ
2021.4 – 2023.3	Committee, Committee on Thesis awards selection, AIJ
2021.4 – 2023.3	Chair (from 2022.4), Secretary (2022.3), Committee on Survey for IT uses in steel construction and fabrication, JSSC Kansai
2021.4 – 2023.3	Committee, Committee on Special survey for numerical simulation techniques and licencing to ensure building performance, AIJ
2022.4 – 2023.3	Member, Subcommittee for Doctoral Dissertation Award, AIJ
2023.4 – 2025.3	Member, Subcommittee on Seismic Performance Evaluation during Large Earthquakes, WG on Secondary Member Cost Evaluation, AIJ
2023.4 – 2025.3	Chair, International Collaboration WG on Stability Research of Steel Structures,

2023.5—present	Subcommittee on Stability in Steel Structures, AIJ Member, Disaster investigation committee member, Japan Society of Seismic Isolation Structures
2023.6—2024.5	Present Secretary, Task Force on Global Response to Standards and Publications: Data Disclosure and V&V WG, AIJ
2024.4—2026.3	Member of the Subcommittee on Seismic Performance Evaluation during Large Earthquakes, Wooden Structures and Foundation Sliding WG, AIJ
2024.4—2026.3	WG Subcommittee of Time History Analysis of Steel Structures, AIJ

**Journal Service:**

2016—2017	Computer-Aided Civil and Infrastructure Engineering, Guest Editor for 2017 Special Issue on "Innovations in Structural Health Monitoring."
2017—2023	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, Advisory Editorial Board
2021—2027	Journal of Earthquake Engineering, Editorial Board
2024—present	AIJ Japan Architectural Review, 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**

"Seismic Resilience and Functional Degradation of Medical Facilities: Preparing for Major Earthquakes in the Kansai Region," Joint Meeting of Blocks 8–11, Working Physicians Division, Osaka Medical Association, Fiscal Year 2024, March 4, 2025

"Behavior of Nonstructural Components and Equipment in Hospital Shake Table Tests," The 2nd Research Meeting of the Steel Structures Committee, AIJ Kinki Chapter, January 19, 2024

"Interdisciplinary Research on Seismic Resilience Assessment of Medical Facilities," 29th Annual Meeting of the Japan Society for Disaster Medicine, February 24, 2024

"Quick Quake Briefing: Japan M7.5 Noto Peninsula Earthquake of 1 January 2024 – Part 2: Building Damage," Virtual EERI-NC Webinar, April 25, 2024

"Adaptable Structural Design Considering Local Construction Custom and Quality," 47th Research Presentation Meeting, Kajima Academic and Cultural Foundation, November 7, 2024

"Engineering-Based Evaluation of Hospital Function Degradation and Adaptation Following Earthquakes," 64th Regular Study Session, Hyogo Association of Clinical Engineers, November 16, 2024

"Seismic Damage to Medical Facilities and Efforts to Improve Business Continuity," Disaster Prevention Symposium: Rethinking Earthquake Disasters in Okinawa, November 16, 2023

"Multi-Disciplinary Approach on Earthquake Reconnaissance and Large-Scale Testing for Seismic Assessment and Monitoring of Medical Facilities," Webinar for Earthquake Engineering, hosted by the Department of Civil and Environmental Engineering, UTEC, December 7, 2023

University of Catania, Italy “Ph.D. Course in Evaluation and Mitigation of Urban and Territorial Risks”: Multi-Disciplinary Approach on Earthquake Reconnaissance and Large-Scale Testing for Seismic Assessment and Monitoring of Medical Facilities, October 4, 2023

Architectural Institute of Japan: Emergency Report Meeting on the Turkey–Syria Earthquake Disaster – Building Damage and Business Continuity: Industrial Parks (Precast Concrete and Steel Structures) / Hospital Facilities (Seismic and Base-Isolated), April 29, 2022

“Reconnaissance, Seismic Assessment, and Monitoring of Hospital Buildings with due Consideration of Nonstructural Components and Equipment,” Georgia Institute of Technology Earthquake, SMEM Seminar, October 11, 2022 (invited)

NHERI/E-Defense First Phase, NHERI National Disaster Research Summit, Oct 5-6, 2022 (invited)

Hospital Function Loss Due to Earthquakes Monitored in Relation to Business Continuity Planning (BCP), Study Group on Vibration Measurement Technologies for Buildings and Diverse Performance Assessments, June 2, 2022 (Invited Lecture)

Hospital Function Loss Due to Earthquakes, General Building Research Corporation of Japan – Seminar on Business Continuity Planning (BCP), May 16, 2022 (Invited Lecture)

“Monitoring for Earthquake Engineering: Current initiatives and future direction,” 17th World Conference on Earthquake Engineering, Future Direction Session, Super advanced exploration, simulation, and monitoring (Panelist)

“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

“Let’s Think About Disasters Together – Forewarned is Forearmed: Essential Knowledge and Awareness for Preparedness – What Happens to Hospitals, Especially NICUs,” During a Major Earthquake?, Educational Seminar by the Japan Academy of Neonatal Nursing: 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

"Business Continuity Evaluation of Critical Facilities Considering Aftershock-Induced Operational Disruptions," 26th Regular Meeting of the IT Strong Motion Seismograph Research Group, January 24, 2017 (in Japanese)

"Ensuring Continued Use of Key Community Facilities,"  
22nd Kyoto University Uji Campus Industry-Academia Exchange Meeting, December 6, 2016 (in Japanese)

"Lessons from the Kumamoto Earthquake: From the Perspective of Building Structures,"  
Minami Fire Prevention Association Lecture, September 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 (lapsed in April 17, 2010)

Masahiro Kurata, Kailai Den: Method of constructing a composite stud, a floor structure and the floor structure

[Patent number] Japanese Patent No. 7082413 (P7082413)

[Publication date] Reiwa 4(2022) June 8 (2022.6.8)

[Patentee] Kyoto University

## PUBLICATIONS

### SCI Journal Papers:

1. Huang, J., & Kurata, M. (2025). Probabilistic seismic damage assessment for partition walls based on a multi-spring numerical model incorporating uncertainties. *Computer-Aided Civil and Infrastructure Engineering*, 1–17. <https://doi.org/10.1111/mice.13472>
2. Shen, S.-D., Gu, A., Kurata, M., Huang, J. and Xie, J.-Z. (2025), Coupling Coefficient-Based Damage Evaluation Method of Precast Unbonded Post-Tensioned (UPT) Shear Wall Structures. *Earthquake Engng Struct Dyn.*, 54: 1156-1171. <https://doi.org/10.1002/eqe.4305>
3. Huang J, Kurata M. Influence of Doors on the In-Plane Seismic Behavior of Partition Walls, *Journal of Structural Engineering*, 151(1), 2025 <https://doi.org/10.1061/JSENDH.STENG-13618>

4. Akazawa M, Kurata M, Yamazaki S, Kawamata Y, Matsuo S. Test and sensitivity analysis of base-isolated steel frame with low-friction spherical sliding bearings. *Earthquake Engng Struct Dyn.* 2025; 54: 100–118. <https://doi.org/10.1002/eqe.4249>
5. Tsutsumi, T, Fukuyama K, Kishimoto K, Mori Y, Sugiyama O, Yamamoto G, Kurata M, Ueshima H, Saito K, Kuroda T, Ohtsuru S. Operating table stability and patient safety during an earthquake based on the results of a shaking table experiment, *BJA (British Journal of Anaesthesia) Open*, 11 (C): <https://doi.org/10.1016/j.bjao.2024.100301>
6. Lin, K.-S., Kurata, M., Kawasaki, Y. and Kitatani, Y. (2024), Investigation of low-disturbance seismic retrofit method for steel column bases using curved members. *Jpn Archit Rev*, 7: e12429. <https://doi.org/10.1002/2475-8876.12429>
7. Skalomenos K, Kurata M. Collapse hybrid simulation for testing steel building columns subject to boundary condition changes. *Earthquake Engng Struct Dyn.* 2024; 53: 1612–1637. <https://doi.org/10.1002/eqe.4083>
8. Shen S-D, Kurata M. A novel damage evaluation method for exposed column bases (ECBs) affecting the seismic properties of low-rise steel moment-resisting frames (MRF). *Earthquake Engng Struct Dyn.* 2024; 53: 218–236. <https://doi.org/10.1002/eqe.4016>
9. Lin K-S, Kurata M, Petinga D, Suzuki, Y., Matsuo, S., Perea T. Effectiveness of repairing yielding anchor rods in exposed column bases in steel structures. *Earthquake Engng Struct Dyn.* 2024; 53: 1656–1675. <https://doi.org/10.1002/eqe.4087>
10. Huang J, Kurata M, Shen S-D. Experimental investigation and modeling of boundary influences on in-plane seismic performance of partition walls. *Earthquake Engng Struct Dyn.* 2024; 53: 924–942. <https://doi.org/10.1002/eqe.4051>
11. Astudillo, B, Rivera, D, Duke, J, Simpson, B, Fahnestock, LA, Sause, R, Ricles, J, Kurata, M, Okazaki, T, Kawamata, Y, Tao, Z, Qie Y, Modeling uncertainty of specimens employing spines and force-limiting connections tested at E-defense shake table. *Earthquake Engng Struct Dyn.* 2023; 52: 4638–4659. <https://doi.org/10.1002/eqe.3976>
12. Qi, L., Kurata, M., Huang, J., Kawamata Y., Aida, S., Cho, K., Kanao, K., Takaoka, M. Seismic damage and functional loss of ceiling systems: Observation in shaking table test of hospital specimen. *Earthquake Engng Struct Dyn.* 2023; 52: 2888–2909. <https://doi.org/10.1002/eqe.3900>
13. Shen, S-D, Kurata, M. “Rapid evaluation of structural soundness of steel frames using a coupling coefficient (CC)-based method,” *Earthq. Engng Struct Dyn.*; 2023; 52: 1182–1204. <https://doi.org/10.1002/eqe.3811>
14. Huang, J, Kurata, M, Kawamata, Y, Kanao, I, Qi, L, Takaoka, M. In-Plane damage of partition walls with various boundaries during earthquakes. *Earthquake Engng Struct Dyn.* 2022; 1- 19. <https://doi.org/10.1002/eqe.3802>
15. Shimoto, M., Cho, K., Kurata, M., Hitomi, M., Kato, Y., Aida, S., Sugiyama, O., Maki, N., Ohtsuru, S. “Hospital Evacuation Implications After the 2016 Kumamoto Earthquake,” *Disaster Medicine and Public Health Preparedness*, 1-3, 2022 doi:10.1017/dmp.2022.25 (Report from the Field)
16. Horiuchi, T., Ohsaki, M., Kurata, M., Ramirez, JA., Yamashita, T., Kajiwar, K. “Contributions of E-Defense Shaking Table to Earthquake Engineering and its Future,” *Journal of Disaster Research*, 17 (6), 985-999, 2022.10, <https://doi.org/10.20965/jdr.2022.p0985>
17. Ikeda, Y., Kurata, M., Xie, J. “Verification of multi-degree-of-freedom building modelling for seismic response prediction based on microtremor measurement,” *Earthquake Engng Struct Dyn.* 2022; 00 1– 26, <https://doi.org/10.1002/eqe.3630>
18. Skalomenos, K., Whittall, T., Kurata, M., Pickering J. “Component testing and multi-level seismic design of steel braced frames with high post-yielding stiffness and two-phase yielding,” *Soil Dynamics and Earthquake Engineering* 157, 107248, 2022.6, <https://doi.org/10.1016/j.soildyn.2022.107248>

19. Hamauzu, S., Skalomenos, K., Kurata, M., Theofanous M. “Local buckling behaviour of high-strength steel tubular columns subjected to one-sided cyclic loading and implications in seismic design of steel MRFs,” *Soil Dynamics and Earthquake Engineering* 154, 107115, 2022.3, <https://doi.org/10.1016/j.soildyn.2021.107115>
20. Qi, L., Kurata, M., Ikeda Y. “Seismic damage thresholds and design methods for two-elevation continuous ceiling systems,” *Engineering Structures*, 251, 113530, 2022, <https://doi.org/10.1016/j.engstruct.2021.113530>
21. Shen, SD., Kurata, M., Pan, P., He, ZZ. “Test, analysis, and design of ovally - perforated vertically - flexible steel plate shear wall (OVSPW),” *Earthquake Engineering & Structural Dynamics*, 51(1), pp. 66-85, 2022.1, <https://doi.org/10.1002/eqe.3556>
22. Ammons, M., Shimada, H., McCormick, J., Kurata, M. “Experimental Investigation of Foam Filled CHS Braces under Cyclic Loading,” *Journal of Structural Engineering*, 147(5), 04021044, 2021.5, [https://doi.org/10.1061/\(asce\)st.1943-541x.0002993](https://doi.org/10.1061/(asce)st.1943-541x.0002993)
23. Li, X., Kurata, M., Wang, Y-H., Nakashima, M. “Estimating Earthquake-Induced Displacement Responses of Building Structures Using Time-Varying Model and Limited Acceleration Data,” *Journal of Structural Engineering*, 147(4), 04021014, 2021.4, [https://doi.org/10.1061/\(asce\)st.1943-541x.0002973](https://doi.org/10.1061/(asce)st.1943-541x.0002973)
24. Qi, L., Kurata, M., Ikeda, Y., Kunitomo, K., Takaoka, M. “Seismic evaluation of two - elevation ceiling system by shake table tests,” *Earthquake Engineering and Structural Dynamics*, 50(4), pp. 11447-1166, 2021.4, <https://doi.org/10.1002/eqe.3390>
25. Arfin, F.A., Sullivan, T., MacRae, G., Kurata, M., Takeda, T. “Lessons for loss assessment from the Canterbury earthquakes: a 22-storey building,” *Bulletin of Earthquake Engineering*, 19(5), pp. 2081-2104, 2021.3, <https://doi.org/10.1007/s10518-021-01055-7>
26. Otsuki, Y., Li, D., Dey, S.S., Kurata, M., Wang, Y. “Finite Element Model Updating of an 18-Story Structure using Branch-and-Bound Algorithm with Epsilon-Constraint,” *Journal of Civil Structural Health Monitoring*, 2020.12, <https://doi.org/10.1007/s13349-020-00468-3>
27. Liu, Y., Nishiyama, M., Tani, M., Kurata, M., Iwata, K. “Steel beam with web opening reinforced by induction heating,” *Journal of Constructional Steel Research*, Volume, 176, 106399, <https://doi.org/10.1016/j.jcsr.2020.106399>, 2021.1
28. Marzano, G., Skalomenos, K.A., Kurata, M. “Multiple-Damage State Retrofit of Steel Moment-Resisting Frames with Minimal Disturbance Arm Damper,” *Journal of Structural Engineering*, [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002697](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002697), 2020.9
29. Zeng, X., Deng, K., Kurata, M., Duan, J., Zhao, C. “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>, 2020.9
30. Qi, L., Kunitomo, K., Kurata, M., Ikeda, Y. “Investigating the Vibration Properties of Integrated Ceiling Systems Considering Interactions with Surrounding Equipment,” *Earthquake Engineering and Structural Dynamics*, 49(8), 772-793, <https://doi.org/10.1002/eqe.3264>, 2020.7
31. Liu, Y., Tani, M., Kurata, M., Watase, C., Nishiyama, M. “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>, 2020.5
32. Skalomenos, K.A., Kurata, M., Nishiyama, M. “Induction-heat treated steel braces with intentional eccentricity,” *Engineering Structures*, 211, 2020, 110461, <https://doi.org/10.1016/j.engstruct.2020.110461>, 2020.5
33. Deng, K., Zeng, X., Kurata, M., Zhao, C., Onishi, K. “Damage Control of Composite Steel Beams Using Flexible Gel-Covered Studs,” *Journal of Structural Engineering*, 146 (3), [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002534](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002534), 2020.3.



34. 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>.
35. 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>.
36. 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>.
37. 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>
38. 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>
39. 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)
40. 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).
41. 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>.
42. 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>
43. 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).
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