



稻益 博行 (いなます ひろゆき) Ph.D. (Docteur ès Sciences)

京都大学大学院 工学研究科 建築学専攻  
建築生産工学講座 空間構造開発工学分野  
講師

電話番号: 075 383 2948  
E-mail: [inamasu@archi.kyoto-u.ac.jp](mailto:inamasu@archi.kyoto-u.ac.jp)

住所 : 〒615-8540 京都市西京区京都大学桂 桂キャンパス C クラスターC2 棟 3 階 303 号室

(2024年11月)

## 学歴

- 2021年3月 スイス連邦工科大学ローザンヌ校 (EPFL) 建築・土木・環境工学科 Ph.D. 課程 修了  
2016年3月 京都大学 大学院 工学研究科 建築学専攻 修士課程 修了  
2014年3月 京都大学 工学部 建築学科 学士課程 修了

## 職歴

- 2024年 - 現在 京都大学 大学院 工学研究科 建築学専攻 講師  
2022年 - 2023年 モントリオール理工科大学 (カナダ・ケベック州) 土木・地質・鉱山工学科 博士研究員  
2021年 - 2022年 京都大学 防災研究所 地震防災研究部門 博士研究員  
2016年 - 2021年 スイス連邦工科大学ローザンヌ校 研究・教育助手 (Doctoral assistant)  
2016年 - 2016年 日本学術振興会 特別研究員 (DC1)

## 担当講義

### 京都大学大学院

鋼構造特論 (分担)

### 京都大学

構造・材料実験 (分担), 鉄骨構造 II (分担), 建築情報処理演習 (分担)

## 賞罰

- 2023年 *Earthquake Spectra* (EERI, Sage Journals) Outstanding Reviewer for 2023  
2023年 *Journal of Structural Engineering* (ASCE) Best Paper in Material and Structure Response for 2022  
[Inamasu H., de Castro e Sousa A., and Lignos D. G. (2022), Development and experimental validation of dissipative embedded column base connections for enhanced seismic performance of steel moment-resisting frames, *Journal of Structural Engineering*, Vol. 148, Issue 3, p. 04021280.]  
2023年 *Soil Dynamics & Earthquake Engineering* (Elsevier) SDEE Ahmet Çakmak Best Paper Award 2021  
[Hayashi K., Skalomenos K. A., Jamshiyas S., and Inamasu H. (2021), Full-scale cyclic testing of naturally buckling braces and evaluation of partially rib-strengthened cross-sections to cumulative damage, *Soil Dynamics and Earthquake Engineering*, Vol. 147, p. 106611.]  
2021年 第17回世界地震工学会議 (WCEE) Early Career & Student Award  
[Inamasu H., de Castro e Sousa A., and Lignos D. G. (2020), Cyclic testing of dissipative embedded column base connections for steel moment-resisting frames, *17th World Conference on Earthquake Engineering* (WCEE), Sendai, Japan.]  
2016年 日本建築学会近畿支部研究発表会 優秀発表賞  
2016年 京都大学建築会 優秀修士論文賞

## 研究業績 ([Google scholar](#) / [researchmap](#))

---

### A. 完全査読 SCI (Science Citation Index) 論文 (2名以上の査読あり) 13編

- A1. Hayashi K., and [Inamasu H.](#) (2023), Seismic performance of concrete-filled steel tube columns using ultra-high strength steel under long-period ground motion demands, *Advances in Structural Engineering*, Vol. 26, Issue 12, p. 2160-2171.
- A2. [Inamasu H.](#), de Castro e Sousa A., and Lignos D. G. (2022), Development and experimental validation of dissipative embedded column base connections for enhanced seismic performance of steel moment-resisting frames, *Journal of Structural Engineering*, Vol. 148, Issue 3, p. 04021280.
- A3. [Inamasu H.](#), and Lignos D. G. (2022), Finite element modeling and cyclic behavior of dissipative embedded column base connections, *Journal of Constructional Steel Research*, Vol. 189, p. 107063.
- A4. [Inamasu H.](#), and Lignos D. G. (2022), Seismic performance of steel columns interacting with embedded column bases while exhibiting inelastic deformations, *Engineering Structures*, Vol. 251, p. 113381.
- A5. [Inamasu H.](#), de Castro e Sousa A., Guell G., and Lignos D. G. (2021), Anchor-yield exposed column bases for minimizing residual deformations in seismic-resistant steel moment frames, *Earthquake Engineering and Structural Dynamics*, Vol. 50, Issue 4, pp. 1083-1100.
- A6. [Inamasu H.](#), Kanvinde A.M., and Lignos D. G. (2021), Seismic design of non-dissipative embedded column base connections, *Journal of Constructional Steel Research*, Vol. 177, pp. 106417.
- A7. Hayashi K., Skalomenos K. A., Jamshiyas S., and [Inamasu H.](#) (2021), Full-scale cyclic testing of naturally buckling braces and evaluation of partially rib-strengthened cross-sections to cumulative damage, *Soil Dynamics and Earthquake Engineering*, Vol. 147, p. 106611.
- A8. [Inamasu H.](#), Kanvinde A. M., and Lignos D. G. (2019), Seismic stability of wide-flange steel columns interacting with embedded column base connections, *Journal of Structural Engineering*, Vol. 145, Issue 12, pp. 04019151.
- A9. Hayashi K., Skalomenos K. A., [Inamasu H.](#), and Luo Y. B. (2018), Self-centering rocking composite frame using double-skin concrete-filled steel tube columns and energy-dissipating fuses in multiple locations, *Journal of Structural Engineering*, Vol. 144, Issue 9, pp. 04018146.
- A10. Skalomenos K. A., [Inamasu H.](#), Shimada H., and Nakashima M. (2017), Development of a steel brace with intentional eccentricity and experimental validation, *Journal of Structural Engineering*, Vol. 143, Issue 8, pp. 04017072.
- A11. [Inamasu H.](#), Skalomenos K. A., Hsiao P-C., Hayashi K., Kurata M., and Nakashima M. (2017), Gusset plate connections for naturally buckling braces, *Journal of Structural Engineering*, Vol. 143, Issue 8, pp. 04017065.
- A12. Skalomenos K. A., Hayashi K., Nishi R., [Inamasu H.](#), and Nakashima M. (2016), Experimental behavior of concrete-filled steel tube columns using ultrahigh-strength steel, *Journal of Structural Engineering*, Vol. 142, Issue 9, pp. 04016057.
- A13. Hsiao P-C., Hayashi K., [Inamasu H.](#), Luo Y. B., and Nakashima M. (2016), Development and testing of naturally buckling steel braces, *Journal of Structural Engineering*, Vol. 142, Issue 1, pp. 04015077.

### B. 完全査読論文 (2名以上の査読あり) 3編

- B1. 林和宏, 中村美咲, 稲益博行, 本間慶一 (2019), Naturally Buckling Brace の実大性能検証実験および復元力特性評価法の提案, 日本建築学会構造工学論文集B, Vol. 65B, pp. 9-15.
- B2. 林和宏, [稻益博行](#) (2017), PC 鋼棒と中空 CFT 柱を用いたセルフセンタリング機構の耐震性能, 日本建築学会構造工学論文集 B, Vol. 63B, pp. 181-188.
- B3. [稻益博行](#), 蕭博謙, 林和宏, 中島正愛 (2015), 異種鋼材を併用した偏心座屈プレースの提案とその実験的検証, 日本建築学会構造系論文集, Vol. 80, No. 713, pp. 1165-1174.

### C. 国際会議論文 (査読あり) 20編

- C1. [Inamasu H.](#), Bijelic N., and Lignos D. G. (2024), Seismic performance of steel moment-resisting frames utilizing dissipative embedded column base connections, *11th International Conference on Behaviour of Steel Structures in Seismic Areas (STESSA 2024)*, Salerno, Italy, pp. 926-936.
- C2. [Inamasu H.](#) and Lignos D. G. (2024), Weak-base/strong-column design concept utilizing dissipative embedded column base connections, *18th World Conference on Earthquake Engineering (WCEE)*, Milan, Italy.
- C3. Tremblay R. and [Inamasu H.](#) (2024), Design of brace intersected beams in inverted-V and two-storey X steel concentrically braced frames, *Canadian Conference - Pacific Conference on Earthquake Engineering (CCEE-PCEE) 2023*, Vancouver, Canada, pp. 2339-2350.

- C4. Inamasu H., Tremblay R., Wiebe L. Fazileh F., and Fathi-Fazl R. (2024), Assessment of the NBC seismic force modification factors for moderately ductile steel concentrically braced frames using the performance-based unified procedure, *Canadian Conference - Pacific Conference on Earthquake Engineering (CCEE-PCEE) 2023*, Vancouver, Canada, pp. 381-392.
- C5. Wack M. C. M., Chhoeng O., Inamasu H., Boissonnade N., and Tremblay R. (2024), Preliminary investigation on the compressive strength of built-up compression members of the original Champlain bridge, *Canadian Society for Civil Engineering (CSCE) annual conference 2023*, Moncton, Canada, pp. 31-44.
- C6. Inamasu H., de Castro e Sousa A., and Lignos D. G. (2023), Dissipative embedded column bases for enhanced seismic performances of steel moment resisting frames, *10th Hellenic National Conference of Steel Structures*, Athens, Greece.
- C7. Inamasu H., de Castro e Sousa A., and Lignos D. G. (2022), Development of dissipative embedded column base connections for mitigating column axial shortening, *10th International Conference on Behavior of Steel Structures in Seismic Areas (STESSA)*, Timisoara, Romania.
- C8. Inamasu H., and Lignos D. G. (2022), Full-scale testing of European steel beams with reduced beam section under reversed cyclic loading, *10th International Conference on Behavior of Steel Structures in Seismic Areas (STESSA)*, Timisoara, Romania.
- C9. Inamasu H., de Castro e Sousa A., and Lignos D. G. (2020), Cyclic testing of dissipative embedded column base connections for steel moment-resisting frames, *17th World Conference on Earthquake Engineering (WCEE)*, Sendai, Japan.
- C10. de Castro e Sousa A., Inamasu H., and Lignos D. G. (2019), An explicit model for exposed column base connections and its parameter sensitivity, *12th Pacific Structural Steel Conference (PSSC)*, Tokyo, Japan.
- C11. Inamasu H., and Lignos D. G. (2019), Concepts to minimize earthquake-induced column axial shortening in steel moment-resisting frames, *12th Pacific Structural Steel Conference (PSSC)*, Tokyo, Japan.
- C12. Inamasu H., de Castro e Sousa A., Bartrina G. G., and Lignos D. G. (2019), Exposed column base connections for minimizing earthquake-induced residual deformations in steel moment-resisting frames, *Society for Earthquake and Civil Engineering Dynamics (SECED) Conference 2019*, Greenwich, London, UK.
- C13. Inamasu H., Lignos D. G., and Kanvinde A. M. (2018), Influence of embedded steel column base strength on earthquake-induced residual deformations, *16th European Conference on Earthquake Engineering (ECEE)*, Thessaloniki, Greece.
- C14. Inamasu H., Lignos D. G., and Kanvinde A. M. (2018), Effect of column base flexibility on earthquake-induced residual deformations of steel columns, *9th International Conference on Behavior of Steel Structures in Seismic Areas (STESSA)*, Christchurch, New Zealand.
- C15. Inamasu H., Lignos D. G., and Kanvinde A. M. (2017), The seismic stability and ductility of steel columns interacting with concrete footings, *8th International Conference on Composite Construction in Steel and Concrete (CCXIII)*, Wyoming, USA.
- C16. Inamasu H., Lignos D. G., and Kanvinde A. M. (2017), Effect of column base flexibility on the hysteretic response of wide flange steel columns, *3rd Huixian International Forum on Earthquake Engineering for Young Researchers*, Urbana-Champaign, USA.
- C17. Inamasu H., Skalomenos K. A., Hsiao P-C., Hayashi K., Skalomenos K., Kurata M., and Nakashima M. (2017), Experimental investigation of bolt-configured naturally buckling brace with gusset plate connection, *16th World Conference on Earthquake Engineering (WCEE)*, Santiago, Chile.
- C18. Skalomenos K. A., Inamasu H., Shimada H., Nakashima M. (2017), Experimental investigation on steel braces connected with intentional eccentricity to surrounding frame, *16th World Conference on Earthquake Engineering (WCEE)*, Santiago, Chile.
- C19. Hayashi K., Luo Y. B., Nishi R., Inamasu H., and Nakashima M. (2017), Experimental study on restoring force characteristics of concrete filled steel tube columns using ultra-high strength steel, *16th World Conference on Earthquake Engineering (WCEE)*, Santiago, Chile.
- C20. Skalomenos K. A., Inamasu H., Shimada H., Nakashima M. (2016), Seismic behavior and physical theory model of a steel brace with intentional eccentricity, *11th Pacific Structural Steel Conference (PSSC)*, Shanghai, China.

#### D. 国内会議論文（査読あり） 2編

- D1. 嶋田洋成, 稲益博行, スカラメノス・コンスタンティノス, 倉田真宏 (2018), 初期偏心を施した鋼管ブレースの骨格曲線設計式の評価, 鋼構造年次論文報告集, 日本鋼構造協会, Vol. 26, pp. 188-195.
- D2. 林和宏, 西亮祐, 稲益博行 (2016), 超高強度鋼を用いたコンクリート充填二重鋼管柱部材の曲げ変形性能に関する実験的研究, コンクリート工学年次論文報告集, Vol. 38, No. 2, pp. 1165-1170.

#### E. 日本建築学会大会・支部研究発表会 21編

- E1. 竹川大和, 稲益博行, 聲高裕治 (2024), 埋込み部の鋼材を塑性化させる柱脚の提案とその力学性状の解析的研究 その2 解析結果, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1003-1004.

- E2. 稲益博行, 竹川大和, 聲高裕治 (2024), 埋込み部の鋼材を塑性化させる柱脚の提案とその力学性状の解析的研究 その1 機構の提案と解析方法, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1001-1002.
- E3. 稲益博行 (2024), H形鋼柱に適用する埋込み部降伏型柱脚を用いた米国の鋼構造ラーメン骨組の地震時応答, 日本建築学会近畿支部研究報告集, pp. 361-364.
- E4. 竹川大和, 稲益博行, 聲高裕治 (2024), 角形鋼管柱への適用を意図した埋込み部鋼柱を塑性化させる柱脚の提案とその力学性状に関する解析的研究, 日本建築学会近畿支部研究報告集, pp. 341-344.
- E5. 稲益博行, スカラメノス・コンスタンティノス, 嶋田洋成, 倉田真宏, 中島正愛 (2016), NBB 復元力特性のモデル化と1自由度系モデルによる動的解析, 日本建築学会大会学術講演梗概集, C-1(III), pp. 783-784.
- E6. 嶋田洋成, スカラメノス・コンスタンティノス, 稲益博行, 中島正愛 (2016), 剛性調律プレースの開発と静的評価 その1 概要とモデル検証, 日本建築学会大会学術講演梗概集, C-1(III), pp. 825-826.
- E7. スカラメノス・コンスタンティノス, 嶋田洋成, 稲益博行, 中島正愛 (2016), Development and Seismic Evaluation of Stiffness Turning Steel Brace Part II: Cyclic loading tests, 日本建築学会大会学術講演梗概集, C-1(III), pp. 827-828.
- E8. 稲益博行, スカラメノス・コンスタンティノス, 嶋田洋成, 倉田真宏, 中島正愛 (2016), Naturally Buckling Brace の骨格曲線算定法の提案と地震応答性能評価, 日本建築学会近畿支部研究報告集, pp. 433-436.
- E9. 嶋田洋成, スカラメノス・コンスタンティノス, 稲益博行, 中島正愛 (2016), 初期偏心を与えた鋼製プレースの挙動 その1 提案機構と力学特性, 日本建築学会近畿支部研究報告集, pp. 425-428.
- E10. スカラメノス・コンスタンティノス, 嶋田洋成, 稲益博行, 中島正愛 (2016), Behavior of a Steel Brace with Intentional Eccentricity Part 2: Experimental investigation, 日本建築学会近畿支部研究報告集, pp. 429-432.
- E11. 林和宏, 西亮祐, スカラメノス・コンスタンティノス, 稲益博行, 中島正愛 (2015), PC鋼棒と中空CFT柱を用いたセルフセンタリング架構の準静的載荷実験 その1: 実験概要, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1403-1404.
- E12. 西亮祐, 林和宏, スカラメノス・コンスタンティノス, 稲益博行, 中島正愛 (2015), PC鋼棒と中空CFT柱を用いたセルフセンタリング架構の準静的載荷実験 その2: 実験結果, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1405-1406.
- E13. 稲益博行, 薦博謙, 林和宏, 倉田真宏, 中島正愛 (2015), 無溶接NBB断面と偏心ガセットプレート機構に関する繰返し載荷実験 その1 提案機構と試験体, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1073-1074.
- E14. 中島正愛, 稲益博行, 薦博謙, 林和宏, 倉田真宏 (2015), 無溶接NBB断面と偏心ガセットプレート機構に関する繰返し載荷実験 その2 実験計画と結果, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1075-1076.
- E15. 稲益博行, 薦博謙, 林和宏, 倉田真宏, 中島正愛 (2015), Naturally Buckling Bracesにおける無溶接断面構成法と偏心ガセットプレートの適用, 日本建築学会近畿支部研究報告集, pp. 381-384.
- E16. 林和宏, 西亮祐, スカラメノス・コンスタンティノス, 稲益博行, 中島正愛 (2015), PC鋼棒内蔵型CFT柱を用いたセルフセンタリング架構の耐震性能評価 その1: 実験概要と算定復元力特性, 日本建築学会近畿支部研究報告集, pp. 573-576.
- E17. 西亮祐, 林和宏, スカラメノス・コンスタンティノス, 稲益博行, 中島正愛 (2015), PC鋼棒内蔵型CFT柱を用いたセルフセンタリング架構の耐震性能評価 その2: 実験結果と算定値との比較, 日本建築学会近畿支部研究報告集, pp. 577-580.
- E18. 薦博謙, 稲益博行, 林和宏, 羅雲標, 倉田真宏, 中島正愛 (2014), Development and Experiments of Naturally Buckling Braces: part I Background, Concept and Mechanism, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1073-1074.
- E19. 稲益博行, 薦博謙, 林和宏, 羅雲標, 倉田真宏, 中島正愛 (2014), Naturally Buckling Braceの開発と実験 その2 実験計画と数値解析, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1075-1076.
- E20. 中島正愛, 薦博謙, 稲益博行, 林和宏, 羅雲標, 倉田真宏 (2014), Naturally Buckling Braceの開発と実験 その3 実験結果と考察, 日本建築学会大会学術講演梗概集, C-1(III), pp. 1077-1078.
- E21. 稲益博行, 薦博謙, 林和宏, 羅雲標, 倉田真宏, 中島正愛 (2014), Naturally Buckling Bracesの開発 その2 実験結果と有限要素法解析, 日本建築学会近畿支部研究報告集, pp. 541-544.

## F. 著書およびレポート

- F1. Fazileh F., Fathi-Fazl R., and Huang X. (2023), Performance-based unified procedure for determination of seismic force modification factors  $R_d$ ,  $R_o$  in NBC, National Research Council (NRC) of Canada. Construction Research Centre, Report no. A1-018030, Ottawa, Canada (Chapter 6 Example application, Section 6.4 Moderately ductile steel concentrically braced frame system, prepared by Tremblay R., Inamasu H., and Wiebe L.).

F2. 日本建築学会(2022), 鋼構造物の座屈に関する諸問題 2022, 第1版(第1章執筆協力) .

## 研究プロジェクト

---

### 研究代表

- 2024-2025 年度 科学研究費 研究活動スタート支援  
「地震による柱局所損傷に起因する建物解体リスクの低減を目指す新しい鋼構造柱脚の開発」
- 2016 年度 科学研究費 特別研究員奨励費  
「異種鋼材を併用した偏心座屈プレースの開発」(指導教員: 中島正愛)
- 2015 年度 日本鋼構造協会 鋼構造研究助成事業  
「偏心圧縮プレースに用いるピン挙動接合部の開発」(指導教員: 倉田真宏)

### 研究分担

- 2024-2026 年度 科学研究費 基盤研究 B  
「超巨大地震に対する鋼構造建築物の立体挙動の追跡精度の向上をめざして」(代表: 聲高裕治)

### 特別講演・特別講義

- 2024 年 米国地震工学会 (EERI) 学生部会 モントリオール理工科大学/パデュー大学/マギル大学 合同セミナー 講演
- 2022 年 ケベック州 (カナダ) 構造工学研究クラスター (CEISCE) 年次コロキウム 講演
- 2022 年 モントリオール理工科大学 (カナダ) 学科セミナー 講演
- 2022 年 日本建築学会近畿支部鉄骨構造部会 研究会  
「鋼とコンクリートの取り合い部の終局挙動に関する最新の知見」 講演

### 社会活動

- 2024 年 米国大学院学生会 留学説明会 (京都大学) 講演・登壇
- 2022 年 - 2023 年 米国地震工学会 (EERI) 学生部会 モントリオール理工科大学支部 顧問

### 学術論文査読 ([Web of Science](#))

- Bulletin of Earthquake Engineering* (Springer)  
*Earthquake Engineering and Structural Dynamics* (Wiley)  
*Earthquake Spectra* (SAGE Journals)  
*Engineering Structures* (Elsevier)  
*Journal of Bridge Engineering* (ASCE, American Society of Civil Engineers)  
*Journal of Building Engineering* (Elsevier)  
*Journal of Constructional Steel Research* (Elsevier)  
*Journal of Structural Engineering* (ASCE, American Society of Civil Engineers)  
*Soil Dynamics and Earthquake Engineering* (Elsevier)  
*Structures* (Elsevier)

以上



## Hiroyuki Inamasu, Ph.D. (Docteur ès Sciences)

Kyoto University, Graduate School of Engineering,  
Department of Architecture and Architectural Engineering,  
Architectural Construction Engineering, Space Development and Structural Systems  
Junior Associate Professor

Phone: +81 75 383 2948

E-mail: [inamasu@archi.kyoto-u.ac.jp](mailto:inamasu@archi.kyoto-u.ac.jp)

Address: 303, Bldg. C2, C-cluster, Kyoto University Katsura Campus, Nishikyo-Ward, Kyoto-City, Kyoto-Prefecture, Japan (Postal code: 615-8540)

(As of November 2024)

### Education

- March 2021 École Polytechnique Fédérale de Lausanne (EPFL) (Switzerland)  
– School of Architecture, Civil and Environmental Engineering (ENAC)  
Ph. D. (Docteur ès Sciences) in Civil and Environmental Engineering
- March 2016 Kyoto University (Japan) – Graduate School of Engineering, Department of Architecture and Architectural Engineering  
Master of Engineering in the field of Architecture and Architectural Engineering (Emphasis on structural engineering)
- March 2014 Kyoto University (Japan) – Faculty of Engineering, Undergraduate School of Architecture  
Bachelor of Engineering in the field of Architecture (Emphasis on structural engineering)

### Work Experiences

- 2024 – Present Junior Associate Professor at Kyoto University (Japan), Graduate School of Engineering, Department of Architecture and Architectural Engineering
- 2022 – 2023 Postdoctoral Researcher at Polytechnique Montréal (Canada), Department of Civil, Geological and Mining Engineering
- 2021 – 2022 Postdoctoral Researcher at Kyoto University (Japan), Disaster Prevention Research Institute (DPRI)
- 2016 – 2021 Doctoral Assistant at École Polytechnique Fédérale de Lausanne (EPFL) (Switzerland), School of Architecture, Civil and Environmental Engineering
- 2016 – 2016 JSPS Doctoral Research Fellow DC1 at Kyoto University (Japan), Disaster Prevention Research Institute (DPRI)

### Courses

#### Kyoto University, Graduate School

Steel Structures, Adv. (with multiple lectures)

#### Kyoto University, Undergraduate School

Laboratory Tests of Structural Materials and Members (with multiple lectures)

Steel Construction II (with multiple lectures)

Computational Practice on Architectural Design and Engineering (with multiple lectures)

### Honor and Awards

- 2023 *Earthquake Spectra* (EERI, Sage Journals) Outstanding Reviewer for 2023
- 2023 *Journal of Structural Engineering* (ASCE) Best Paper in Material and Structure Response for 2022  
[Inamasu H., de Castro e Sousa A., and Lignos D. G. (2022), Development and experimental validation of dissipative embedded column base connections for enhanced seismic performance of steel moment-resisting frames, *Journal of Structural Engineering*, Vol. 148, Issue 3, p. 04021280.]

- 2023      *Soil Dynamics & Earthquake Engineering* (Elsevier)   SDEE Ahmet Çakmak Best Paper Award 2021  
 [Hayashi K., Skalomenos K. A., Jamshiyas S., and Inamasu H. (2021), Full-scale cyclic testing of naturally buckling braces and evaluation of partially rib-strengthened cross-sections to cumulative damage, *Soil Dynamics and Earthquake Engineering*, Vol. 147, p. 106611.]
- 2021      17th World Conference on Earthquake Engineering (WCEE)   Early Career & Student Award  
[Inamasu H.], de Castro e Sousa A., and Lignos D. G. (2020), Cyclic testing of dissipative embedded column base connections for steel moment-resisting frames, *17th World Conference on Earthquake Engineering (WCEE)*, Sendai, Japan.]
- 2016      Architectural Institute of Japan, Kinki Branch, Annual Meeting, Best Presenter Award
- 2016      Kyoto University Architectural Association (Kenchiku Kai), Distinguished Master Thesis Award
- 2016      Japan Society for the Promotion of Science (JSPS), Doctoral Research Fellowship (DC1)
- 2016      Japanese Student Services Organization (JASSO) Scholarship for Master study at Kyoto University

#### **Publications ([Google scholar](#) / [researchmap](#))**

---

##### A. SCI (Science Citation Index) Journal Papers (13):

- A1. Hayashi K., and Inamasu H. (2023), Seismic performance of concrete-filled steel tube columns using ultra-high strength steel under long-period ground motion demands, *Advances in Structural Engineering*, Vol. 26, Issue 12, p. 2160-2171.
- A2. Inamasu H., de Castro e Sousa A., and Lignos D. G. (2022), Development and experimental validation of dissipative embedded column base connections for enhanced seismic performance of steel moment-resisting frames, *Journal of Structural Engineering*, Vol. 148, Issue 3, p. 04021280.
- A3. Inamasu H., and Lignos D. G. (2022), Finite element modeling and cyclic behavior of dissipative embedded column base connections, *Journal of Constructional Steel Research*, Vol. 189, p. 107063.
- A4. Inamasu H., and Lignos D. G. (2022), Seismic performance of steel columns interacting with embedded column bases while exhibiting inelastic deformations, *Engineering Structures*, Vol. 251, p. 113381.
- A5. Inamasu H., de Castro e Sousa A., Guell G., and Lignos D. G. (2021), Anchor-yield exposed column bases for minimizing residual deformations in seismic-resistant steel moment frames, *Earthquake Engineering and Structural Dynamics*, Vol. 50, Issue 4, pp. 1083-1100.
- A6. Inamasu H., Kanvinde A.M., and Lignos D. G. (2021), Seismic design of non-dissipative embedded column base connections, *Journal of Constructional Steel Research*, Vol. 177, pp. 106417.
- A7. Hayashi K., Skalomenos K. A., Jamshiyas S., and Inamasu H. (2021), Full-scale cyclic testing of naturally buckling braces and evaluation of partially rib-strengthened cross-sections to cumulative damage, *Soil Dynamics and Earthquake Engineering*, Vol. 147, p. 106611.
- A8. Inamasu H., Kanvinde A. M., and Lignos D. G. (2019), Seismic stability of wide-flange steel columns interacting with embedded column base connections, *Journal of Structural Engineering*, Vol. 145, Issue 12, pp. 04019151.
- A9. Hayashi K., Skalomenos K. A., Inamasu H., and Luo Y. B. (2018), Self-centering rocking composite frame using double-skin concrete-filled steel tube columns and energy-dissipating fuses in multiple locations, *Journal of Structural Engineering*, Vol. 144, Issue 9, pp. 04018146.
- A10. Skalomenos K. A., Inamasu H., Shimada H., and Nakashima M. (2017), Development of a steel brace with intentional eccentricity and experimental validation, *Journal of Structural Engineering*, Vol. 143, Issue 8, pp. 04017072.
- A11. Inamasu H., Skalomenos K. A., Hsiao P-C., Hayashi K., Kurata M., and Nakashima M. (2017), Gusset plate connections for naturally buckling braces, *Journal of Structural Engineering*, Vol. 143, Issue 8, pp. 04017065.
- A12. Skalomenos K. A., Hayashi K., Nishi R., Inamasu H., and Nakashima M. (2016), Experimental behavior of concrete-filled steel tube columns using ultrahigh-strength steel, *Journal of Structural Engineering*, Vol. 142, Issue 9, pp. 04016057.
- A13. Hsiao P-C., Hayashi K., Inamasu H., Luo Y. B., and Nakashima M. (2016), Development and testing of naturally buckling steel braces, *Journal of Structural Engineering*, Vol. 142, Issue 1, pp. 04015077.

##### B. Japanese Journal Papers (3):

- B1. Hayashi K., Nakamura M., Inamasu H., Honma K. (2019), Full-scale testing on naturally buckling brace and development of hysteretic models, *AIJ Journal of Structural Engineering B*, Vol. 65B, pp. 9-15.
- B2. Hayashi K. and Inamasu H. (2017), Seismic performance of self-centering frames using PC bars and double-skinned CFT columns, *AIJ Journal of Structural Engineering B*, Vol. 63B, pp. 181-188.

- B3. Inamasu H., Hsiao P.-C., Hayashi K., Nakashima M. (2015), Development and experiment of naturally buckling brace combining different types of steel material, *Journal of Structural and Construction Engineering*, Vol. 80, No. 713, pp. 1165-1174.

C. International Conference Papers (20):

- C1. Inamasu H., Bijelic N., and Lignos D. G. (2024), Seismic performance of steel moment-resisting frames utilizing dissipative embedded column base connections, *11th International Conference on Behaviour of Steel Structures in Seismic Areas (STESSA 2024)*, Salerno, Italy, pp. 926-936.
- C2. Inamasu H. and Lignos D. G. (2024), Weak-base/strong-column design concept utilizing dissipative embedded column base connections, *18th World Conference on Earthquake Engineering (WCEE)*, Milan, Italy.
- C3. Tremblay R. and Inamasu H. (2024), Design of brace intersected beams in inverted-V and two-storey X steel concentrically braced frames, *Canadian Conference - Pacific Conference on Earthquake Engineering (CCEE-PCEE) 2023*, Vancouver, Canada, pp. 2339-2350.
- C4. Inamasu H., Tremblay R., Wiebe L. Fazileh F., and Fathi-Fazl R. (2024), Assessment of the NBC seismic force modification factors for moderately ductile steel concentrically braced frames using the performance-based unified procedure, *Canadian Conference - Pacific Conference on Earthquake Engineering (CCEE-PCEE) 2023*, Vancouver, Canada, pp. 381-392.
- C5. Wack M. C. M., Chhoeng O., Inamasu H., Boissonnade N., and Tremblay R. (2024), Preliminary investigation on the compressive strength of built-up compression members of the original Champlain bridge, *Canadian Society for Civil Engineering (CSCE) annual conference 2023*, Moncton, Canada, pp. 31-44.
- C6. Inamasu H., de Castro e Sousa A., and Lignos D. G. (2023), Dissipative embedded column bases for enhanced seismic performances of steel moment resisting frames, *10th Hellenic National Conference of Steel Structures*, Athens, Greece.
- C7. Inamasu H., de Castro e Sousa A., and Lignos D. G. (2022), Development of dissipative embedded column base connections for mitigating column axial shortening, *10th International Conference on Behavior of Steel Structures in Seismic Areas (STESSA)*, Timisoara, Romania.
- C8. Inamasu H., and Lignos D. G. (2022), Full-scale testing of European steel beams with reduced beam section under reversed cyclic loading, *10th International Conference on Behavior of Steel Structures in Seismic Areas (STESSA)*, Timisoara, Romania.
- C9. Inamasu H., de Castro e Sousa A., and Lignos D. G. (2020), Cyclic testing of dissipative embedded column base connections for steel moment-resisting frames, *17th World Conference on Earthquake Engineering (WCEE)*, Sendai, Japan.
- C10. de Castro e Sousa A., Inamasu H., and Lignos D. G. (2019), An explicit model for exposed column base connections and its parameter sensitivity, *12th Pacific Structural Steel Conference (PSSC)*, Tokyo, Japan.
- C11. Inamasu H., and Lignos D. G. (2019), Concepts to minimize earthquake-induced column axial shortening in steel moment-resisting frames, *12th Pacific Structural Steel Conference (PSSC)*, Tokyo, Japan.
- C12. Inamasu H., de Castro e Sousa A., Bartrina G. G., and Lignos D. G. (2019), Exposed column base connections for minimizing earthquake-induced residual deformations in steel moment-resisting frames, *Society for Earthquake and Civil Engineering Dynamics (SECED) Conference 2019*, Greenwich, London, UK.
- C13. Inamasu H., Lignos D. G., and Kanvinde A. M. (2018), Influence of embedded steel column base strength on earthquake-induced residual deformations, *16th European Conference on Earthquake Engineering (ECEE)*, Thessaloniki, Greece.
- C14. Inamasu H., Lignos D. G., and Kanvinde A. M. (2018), Effect of column base flexibility on earthquake-induced residual deformations of steel columns, *9th International Conference on Behavior of Steel Structures in Seismic Areas (STESSA)*, Christchurch, New Zealand.
- C15. Inamasu H., Lignos D. G., and Kanvinde A. M. (2017), The seismic stability and ductility of steel columns interacting with concrete footings, *8th International Conference on Composite Construction in Steel and Concrete (CCXIII)*, Wyoming, USA.
- C16. Inamasu H., Lignos D. G., and Kanvinde A. M. (2017), Effect of column base flexibility on the hysteretic response of wide flange steel columns, *3rd Huixian International Forum on Earthquake Engineering for Young Researchers*, Urbana-Champaign, USA.
- C17. Inamasu H., Skalomenos K. A., Hsiao P-C., Hayashi K., Skalomenos K., Kurata M., and Nakashima M. (2017), Experimental investigation of bolt-configured naturally buckling brace with gusset plate connection, *16th World Conference on Earthquake Engineering (WCEE)*, Santiago, Chile.
- C18. Skalomenos K. A., Inamasu H., Shimada H., Nakashima M. (2017), Experimental investigation on steel braces connected with intentional eccentricity to surrounding frame, *16th World Conference on Earthquake Engineering (WCEE)*, Santiago, Chile.
- C19. Hayashi K., Luo Y. B., Nishi R., Inamasu H., and Nakashima M. (2017), Experimental study on restoring force characteristics of concrete filled steel tube columns using ultra-high strength steel, *16th World Conference on Earthquake Engineering (WCEE)*, Santiago, Chile.
- C20. Skalomenos K. A., Inamasu H., Shimada H., Nakashima M. (2016), Seismic behavior and physical theory model of a steel brace with intentional eccentricity, *11th Pacific Structural Steel Conference (PSSC)*, Shanghai, China.

D. Japanese Conference Papers (with reviews) (2):

- D1. Shimada H., Inamasu H., Skalomenos K., Kurata M. (2018), Evaluation of design equations of steel braces with an intentional eccentricity, *Proceedings of Construction Steel*, Japanese Society of Steel Construction (JSSC), Vol. 26, pp. 188-195.
- D2. Hayashi K., Nishi R., Inamasu H. (2016), Experimental study on flexural deformation capacity of double-skinned CFT columns using ultra-high-strength steel, *Proceedings of the Japan Concrete Institute*, Japan Concrete Institute, Vol. 38, No. 2, pp. 1165-1170.

E. AIJ Annual National / Branch Meeting (21):

- E1. Takekawa Y., Inamasu H., and Koetaka Y. (2024), Proposal of dissipative embedded column base connections and numerical investigation of their mechanical behavior, Part 2 Simulation results, AIJ national meeting, C-1(III), pp. 1003-1004.
- E2. Inamasu H., Takekawa Y., and Koetaka Y. (2024), Proposal of dissipative embedded column base connections and numerical investigation of their mechanical behavior, Part 1 Proposed concept and numerical models, AIJ national meeting, C-1(III), pp. 1001-1002.
- E3. Inamasu H. (2024), Seismic responses of US steel moment-resisting frames utilizing dissipative embedded column base connections developed for wide-flange steel columns, AIJ Kinki branch meeting, pp. 361-364.
- E4. Takekawa Y., Inamasu H., and Koetaka Y. (2024), Proposal of dissipative embedded column base connections applicable for steel tube columns and numerical investigation of their mechanical behavior, AIJ Kinki branch meeting, pp. 341-344.
- E5. Inamasu H., Skalomenos K., Shimada H., Kuarata M., and Nakashima M. (2016), Modeling of NBB and SDOF dynamic analysis, AIJ national meeting, C-1(III), pp. 783-784.
- E6. Shimada H., Skalomenos K., Inamasu H., and Nakashima M. (2016), Development and seismic evaluation of stiffness turning steel brace Part 1: Concept and model validation, AIJ national meeting, C-1(III), pp. 825-826.
- E7. Skalomenos K., Shimada H., Inamasu H., and Nakashima M. (2016), Development and seismic evaluation of stiffness turning steel brace Part II: Cyclic loading tests, AIJ national meeting, C-1(III), pp. 827-828.
- E8. Inamasu H., Skalomenos K., Shimada H., Kuarata M., and Nakashima M. (2016), Physical model and numerical investigation of seismic performance of Naturally Buckling Brace, AIJ Kinki branch meeting, pp. 433-436.
- E9. Shimada H., Skalomenos K., Inamasu H., and Nakashima M. (2016), Behavior of a Steel Brace with Intentional Eccentricity Part 1: Deformation mechanism and physical model, AIJ Kinki branch meeting, pp. 425-428.
- E10. Skalomenos K., Shimada H., Inamasu H., and Nakashima M. (2016), Behavior of a Steel Brace with Intentional Eccentricity Part 2: Experimental investigation, AIJ Kinki branch meeting, pp. 429-432.
- E11. Hayashi K., Nishi R., Skalomenos K., Inamasu H., and Nakashima M. (2015), Quasi-static tests of self-centering frames using PC bars and double-skinned CFT columns Part 1, AIJ national meeting, C-1(III), pp. 1403-1404.
- E12. Nishi R., Hayashi K., Skalomenos K., Inamasu H., and Nakashima M. (2015), Quasi-static tests of self-centering frames using PC bars and double-skinned CFT columns Part 2, AIJ national meeting, C-1(III), pp. 1405-1406.
- E13. Inamasu H., Hsiao P.-C., Hayashi K., Kuarata M., and Nakashima M. (2015), Cyclic loading tests of NBB systems with non-weld configuration and eccentric gusset plates -Part 1: Proposed configuration and specimens, AIJ national meeting, C-1(III), pp. 1073-1074.
- E14. Nakashima M., Inamasu H., Hsiao P.-C., Hayashi K., and Kuarata M. (2015), Cyclic loading tests of NBB systems with non-weld configuration and eccentric gusset plates -Part 2: Test plan and results, AIJ national meeting, C-1(III), pp. 1075-1076.
- E15. Inamasu H., Hsiao P.-C., Hayashi K., Kuarata M., and Nakashima M. (2015), Applications of non-weld configuration and eccentric gusset plates to naturally buckling braces, AIJ Kinki branch meeting, pp. 381-384.
- E16. Hayashi K., Nishi R., Skalomenos K., Inamasu H., and Nakashima M. (2015), Seismic performance of self-centering frame with CFT columns incasing PC bar Part 1, AIJ Kinki branch meeting, pp. 573-576.
- E17. Nishi R., Hayashi K., Skalomenos K., Inamasu H., and Nakashima M. (2015), Seismic performance of self-centering frame with CFT columns incasing PC bar Part 2, AIJ Kinki branch meeting, pp. 577-580.
- E18. Hsiao P.-C., Inamasu H., Hayashi K., Luo Y.-B., Kuarata M., and Nakashima M. (2014), Development and experiments of naturally buckling braces: part I Background, concept and mechanism, AIJ national meeting, C-1(III), pp. 1073-1074.
- E19. Inamasu H., Hsiao P.-C., Hayashi K., Luo Y.-B., Kuarata M., and Nakashima M. (2014), Development and experiments of naturally buckling braces: part II Test plan and simulations, AIJ national meeting, C-1(III), pp. 1075-1076.
- E20. Nakashima M., Hsiao P.-C., Inamasu H., Hayashi K., Luo Y.-B., and Kuarata M. (2014), Development and experiments of naturally buckling braces: part III Test results and observations, AIJ national meeting, C-1(III), pp. 1077-1078.
- E21. Inamasu H., Hsiao P.-C., Hayashi K., Luo Y.-B., Kuarata M., and Nakashima M. (2014), Development of Naturally Buckling Braces – Part II: Test results, observations and simulations, AIJ Kinki branch meeting, pp. 541-544.

## F. Books and Reports

- F1. Fazileh F., Fathi-Fazl R., and Huang X. (2023), Performance-based unified procedure for determination of seismic force modification factors  $R_d$ ,  $R_o$  in NBC, National Research Council (NRC) of Canada. Construction Research Centre, Report no. A1-018030, Ottawa, Canada (Chapter 6 Example application, Section 6.4 Moderately ductile steel concentrically braced frame system, prepared by Tremblay R., Inamasu H., and Wiebe L.).
- F2. Architectural Institute of Japan (AIJ) (2022), Stability problems of steel structures 2022, 1st Edition (Contributed to chapter 1).

## Funding Award

---

### Principal Investigator

- 2024–2025 Japan Society for the Promotion of Science (JSPS), Grant-in-Aid for Research Activity Start-up: “Development of innovative column bases as part of steel moment frames for mitigating building demolition risk due to earthquake-induced column local damages”
- 2016 Japan Society for the Promotion of Science (JSPS), Grant-in-Aid for JSPS Fellows: “Development of steel braces combining different steel materials with an intentional initial eccentricity” (Advisor: Masayoshi Nakashima)
- 2015 Japan Society of Steel Construction (JSSC), Award for Young Researchers: “Development of brace end joints with pinned behaviors for braces with intended initial eccentricity” (Advisor: Masahiro Kurata)

### Co-Investigator

- 2024–2026 Japan Society for the Promotion of Science (JSPS), Grant-in-Aid for Scientific Research (B): “Improvement of numerical analysis technique for three-dimensional behavior of steel structures under quite huge earthquakes” (PI: Yuji Koetaka)

## Seminar/Talk

---

- 2024 Earthquake Engineering Research Institute (EERI) Polytechnique Montreal/Purdue/McGill Student Chapter Joint Journal Club (Invited)
- 2022 Centre d'études interuniversitaire des structures sous charges extrêmes (CEISCE) annual colloquium
- 2022 Polytechnique Montreal, Structural group seminar
- 2022 Architectural Institute of Japan (AIJ), Kinki branch, Steel structure group seminar (Invited)

## Activities

---

- 2024 The Japanese Graduate Student Association in the US (JGSAU), information session at Kyoto University, Presenter and Panelist
- 2022 – 2023 Earthquake Engineering Research Institute (EERI) Polytechnique Montreal Student Chapter, Scientific advisor

## Journal Paper Review ([Web of Science](#))

---

- Bulletin of Earthquake Engineering* (Springer)
- Earthquake Engineering and Structural Dynamics* (Wiley)
- Earthquake Spectra* (SAGE Journals)
- Engineering Structures* (Elsevier)
- Journal of Bridge Engineering* (ASCE, American Society of Civil Engineers)
- Journal of Building Engineering* (Elsevier)
- Journal of Constructional Steel Research* (Elsevier)
- Journal of Structural Engineering* (ASCE, American Society of Civil Engineers)
- Soil Dynamics and Earthquake Engineering* (Elsevier)
- Structures* (Elsevier)