Curriculum Vitae[1]
Keisuke Hoshino

Contact details

Division of Mathematics and Mathematical Sciences, Faculty of Science, Kyoto University,
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Education

2023–　Ph.D. course in Division of Mathematics and Mathematical Sciences, Faculty of Science, Kyoto University.

2021–2023　Master's course in Division of Mathematics and Mathematical Sciences, Faculty of Science, Kyoto University.

　Thesis title : *Towards structures of higher dimensional categories*

2017–2021　Undergraduate course in Faculty of Science, Kyoto University.

Publications

[1]　K. Hoshino and H. Nasu. "Double categories of relations relative to factorisation systems". In: *Appl. Categ. Structures* 33.2 (2025), Paper No. 11, 70. ISSN: 0927-2852,1572-9095. DOI: 10.1007/s10485-025-09799-y. URL: https://doi.org/10.1007/s10485-025-09799-y.

[2]　S. Fujii, K. Hoshino, and Y. Maehara. "Weakly invertible cells in a weak ω-category". In: *High. Struct.* 8.2 (2024), pp. 386–415. ISSN: 2209-0606.

Preprints

[1]　S. Fujii, K. Hoshino, and Y. Maehara. *ω-weak equivalences between weak ω-categories*. 2024. arXiv: 2406.13240 [math.CT]. URL: https://arxiv.org/abs/2406.13240.

Talks

(Invited)

[1]　K. Hoshino and H. Nasu. *Double categories of relations relative to factorisation systems*. Second Virtual Workshop on Double Categories, Online. Mar. 2024.

(non-refereed)

[1]　K. Hoshino. *Bivirtual double categories and localisation of composing cells*. Computer Science and Category Theory, CSCAT2025, Kumamoto, Japan. Mar. 2025.

[2]　K. Hoshino. *Towards Structres of Higher Dimensional Cagegorical Structures*. Computer Science and Category Theory, CSCAT2023, Kyoto, Japan. Mar. 2023.

[3]　K. Hoshino and H. Nasu. *Double categories of relations relative to factorisation systems*. 67th Annual Meeting of the Australian Mathematical Society (AustMS 2023), Brisbane, Australia. Dec. 2023.

[4]　K. Hoshino. *PCAs as algebras over operads*. Computer Science and Category Theory, CSCAT2022, Online. 2022.

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[1]Last updated: May 16, 2025

Teaching experiences

2021 Teaching assistant in Faculty of Science, Kyoto University. Instructor for KTGU Faculty Seminar (KTGU 学部セミナー) reading *Introduction to the Theory of Computation* by Sipser, Michael.

2022 Teaching assistant in Faculty of Science, Kyoto University. Instructor for KTGU Faculty Seminar (KTGU 学部セミナー) reading プログラム意味論 by Yokouchi, Hirofumi.