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沖縄科学技術大学院大学

VISITING PROGRAM

# TSVP TALK

## Universality in Eigenvalue/vector Distributions of Random Tensors

Eigenvalues/vectors of tensors are a modern concept extending those of matrices. They appear in various non-linear contexts, such as spin glasses, general relativity, artificial intelligence, quantum information theory, string theory, and so on, while the matrix counterpart in linear-contexts. Understanding universal properties across various tensor eigen problems is important, since this assures their wide applicability. I talk about our recent finding of a universality of tensor eigenvalue/vector distributions, which has been achieved by systematically computing them using quantum field theoretical techniques.



2026 **JULY 08**  
Wed.

**15:00–16:00**

**HYBRID** L5D23, ZOOM



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Kyoto University

## Naoki Sasakura

Naoki Sasakura obtained his PhD in Physics at Kyoto University. He subsequently held research at University of Tokyo, KEK, Tohoku University, and Niels Bohr Institute (Denmark). In 1997, he joined Department of Physics of Kyoto University, and moved to Yukawa Institute for Theoretical Physics of Kyoto University in 2000. His main interest is discretized approaches to quantum gravity/spacetime emergence, with particular interests in tensor models, while he also worked on supersymmetric gauge theories and string theory. He currently mainly focuses on research on eigenvalue/vector distributions of random tensors by using quantum field theoretical techniques.

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