Jointly organized by the Department of Physics and HK Quantum Institute of Science & Technology

CTCP SEMINAR

Origin of Topological Holography

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Wednesday, June 4, 2025, 5:00pm Room 522, 5/F, Chong Yuet Ming Physics Building, The University of Hong Kong

Abstract:

There is a holographic correspondence between (1) nD quantum systems with symmetry C and (2) nD boundaries of the n+1D topological order Z(C), where Z(C) is mathematically the Drinfeld center of C. Such mysterious topological holography has numerous applications and consequences, especially in the recent emerging field of generalized symmetry. By a rigorous construction and proof in 1+1D, we show that the Drinfeld center Z(C) naturally arise as the category of fixed-point local tensors with symmetry C, thus revealing the origin of topological holography. This talk is based on arXiv:2412.07198.

ANYONE INTERESTED IS WELCOME TO ATTEND!

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