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All-mode technique for higher-order tensor renormalization group in two and three dimension

Wednesday 5 November 2025 11:30 (20 minutes)

We introduce an all-mode extension of the Higher-Order Tensor Renormalization Group (HOTRG) by using a squeezer transformation at the coarse-graining step. This all-mode framework eliminates systematic errors, leaving only statistical uncertainties, enabling direct comparison with exact results. We demonstrate the method on the two- and three-dimensional Ising models, obtaining results in agreement with exact solutions.

Parallel Session (for talks only)

Algorithms and artificial intelligence

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