

Yang-Lee on the fuzzy sphere: spectrum and finite-size scaling (REMOTE)

jeudi 5 juin 2025 14:30 (30 minutes)

In this short talk, I will present the spectrum of the Yang-Lee conformal field theory. Here we utilize use the conformality of the energy spectrum and its consistency with conformal perturbation theory for determining critical points that requires no a priori knowledge of CFT scaling dimensions. We also discuss a new finite-size scaling on the fuzzy sphere that allows us to extract conformal data more reliably, and compare it with the conventional analysis using the (1+1)-dimensional Yang-Lee problem as an example. Our results show broad agreement with previous Monte-Carlo and conformal bootstrap results. We also uncover one previously unknown primary operator and several operator product expansion coefficients.

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