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Density of Yang-Lee zeros in the thermodynamic limit using Tensor RG[1] ARTUR GARCIA-SAEZ, TZU-CHIEH WEI, Yang Institute for Theoretical Physics and Department of Physics and Astronomy, Stony Brook University — The partition function of ferromagnets in a lattice is represented as a Tensor Network and efficiently contracted using an iterative RG process. The density of Yang-Lee zeros on the complex field plane is obtained from accurate calculations of the free energy and local observables in an effective thermodynamic limit. We illustrate this approach studying the distribution of Yang-Lee zeros for the Ising model in 2D and 3D square lattices.

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Artur Garcia-Saez
Yang Institute for Theoretical Physics and Department of Physics
and Astronomy, Stony Brook University

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