

## Lee-Yang zeros and 2D rational dynamics

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In a classical work of 1950's, Lee and Yang proved that zeros of certain polynomials (naturally arising in statistical mechanics) always lie on the unit circle. We study distribution of these zeros for a special "Diamond Hierarchical Lattice". In this case, it can be described in terms of the dynamics of an explicit rational map in two variables. We prove that the Lee-Yang zeros are organized asymptotically in a transverse measure for a certain dynamical foliation. From the global complex point of view, the zero distributions get interpreted as slices of the Green  $(1, 1)$ -current on the projective space.