

Seminar in Nonlinear Systems

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Two-dimensional critical percolation and its continuum scaling limit

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Pierce 218

Abstract: Percolation is a model with a wide range of applications and, especially in two dimensions, a well developed theory. It has received much attention from both physicists and mathematicians for being perhaps the simplest (non-mean-field) model displaying a phase transition with features such as scaling and universality. In this talk, I will first briefly introduce percolation as a prototypical model for the study of phase transitions in statistical physics, then I will discuss some recent progress in the understanding of the continuum scaling limit of two-dimensional critical percolation and its fractal and conformal invariance properties.

Refreshments provided