

abstract

ANALYSIS MATH-PHYSICS SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Loop-erased random walk (LERW) is a random self-avoiding curve obtained by erasing the loops of a random walk according to chronological order. Studying LERW on the two-dimensional integer lattice, Schramm introduced a model of one-parameter planar random curves known today as Schramm-Loewner evolution ($SLE(\kappa)$). Subsequently, in their seminal work Lawler, Schramm and Werner proved that LERW on the two-dimensional integer lattice converges to $SLE(2)$ as the mesh tends to zero. Their proof uses the lattice structure, and the question arises whether a similar result holds also for perturbed lattices or other graphs. We generalize their result, showing that the scaling limit of LERW on a planar irreducible graph G , so that the random walk on G converges to Brownian motion, is $SLE(2)$.

Joint work with Ariel Yadin.