

1059-60-166

Tom Kennedy* (tgk@math.arizona.edu) and **Gregory Lawler**. *Conformal invariance and covariance of the two-dimensional self-avoiding walk.*

The probability measure for the self-avoiding walk (SAW) in a planar domain between two boundary points is conjectured to be conformally invariant. If one considers the “total mass” of SAW’s between two boundary points, then one is led to consider SLE partition functions which are conjectured to be conformally covariant. In this talk we first show that by considering bridges or cut lines for SAW’s in the half plane, one can efficiently simulate SAW’s that are not constrained to end at a fixed point. This allows Monte Carlo tests of the conjecture involving SLE partition functions. These tests show that the predictions of SLE partition functions for hitting densities must be corrected for lattice effects that persist in the scaling limit. We study these lattice effects by simulation and formulate a precise conjecture for them. (Received February 22, 2010)