
PETRI TUISKU, University of Helsinki

2D FK-Ising interface scaling limit in annular domain

We present an on-going joint work with Antti Kemppainen (University of Helsinki) to study the scaling limit of the boundary interface of the two dimensional square lattice Fortuin-Kasteleyn (FK, also known as random cluster model) Ising model (that is, cluster weight $q = 2$ case) in criticality (that is, edge weight $p = p_c = \frac{\sqrt{2}}{\sqrt{2}+1}$ case) in annular planar domains. Our goal is to prove that when appropriate boundary conditions are assigned to the model, the resulting boundary interface converges in the scaling limit to Schramm's chordal SLE(16/3). This result is known (Chelkak, Duminil-Copin, Hongler, Kemppainen, Smirnov) for planar simply connected domains and our work generalizes this result.