

Runkel - From continuum to the lattice in conformal field theory - 2

Thursday, 12 March 2026 11:00 (1 hour)

When studying a 2d statistical system, one important question is to identify critical points and the corresponding universality class of critical behaviour, that is, the 2d conformal field theory which describes the statistical model at large length scales. In this talk, I would like to discuss (but not answer) the converse question: starting from a 2d CFT, is there a way to construct lattice models which recover the given CFT in the continuum limit? A particular focus will be topological symmetries of the CFT, as determined by topological line defects, and how they can be preserved when passing to the lattice model. What is more, the topological symmetry also gives a conjectural condition under which the answer to the above question is “yes”. This talk is based on joint work with Enrico Brehm.