Perturbed defects in perturbed conformal field theories

David Bücher

My talk will be about the relation between braided categories and certain 2-dimensional field theories with topological defects. In particular, I will show how one may "knot together" a (1 + 1)-dimensional conformal field theory from two chiral halves — using (a variant of) the construction due to Fuchs, Runkel, Schweigert and coworkers. Theories obtained in this way naturally have a rich supply of topological defects, and I will discuss the question of how to perturb these defects and the bulk simultaneously such that the perturbed defects are topological in the perturbed theory. A simple condition, formulated as an equation within a braided category, guarantees this.