

Yuya Kusuki: New Crosscap States from Non-invertible Symmetries

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We investigate crosscap states in two-dimensional rational conformal field theories (RCFTs), with a particular emphasis on the role of symmetries, including non-invertible ones. In this work, we develop a systematic bootstrap framework that incorporates both crosscaps and topological interfaces, leading to explicit solutions that reveal new classes of crosscap states beyond previously known constructions. Furthermore, we elucidate how these crosscap states transform under symmetry actions, and establish their connection to anomalies.