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Holographic BCFT Spectra from Brane Mergers

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Recently, boundary conformal field theories (BCFT) and their holographic duals have received renewed attention due to appearing in models of black hole evaporation. The holographic models involve dynamical end-of-the-world (EOW) branes that encode properties of the BCFT boundary in gravity. In the case of 3D gravity, simple EOW brane models are not able to describe excited states or boundary condition changing (BCC) operators of the dual 2D BCFT. In this talk, I show how to overcome these shortcomings by coupling the bulk theory to scalar fields and point-particles while at the same time allowing the branes to intersect non-smoothly. It turns out that BCC operators are exactly described by the intersecting brane configurations. I will also mention a new bra-ket wormhole saddle whose CFT interpretation seems to require ensemble averaging. Based on: 2209.11227

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