

# Holographic Correlators of Boundary/Crosscap CFTs in Two Dimensions

*Thursday, 10 July 2025 12:10 (20 minutes)*

This work explores holographic correlators within the frameworks of two-dimensional Boundary Conformal Field Theory (BCFT) and Crosscap Conformal Field Theory (XCFT). Utilizing the AdS/CFT correspondence, we compute stress tensor correlators in BCFT, considering both tensionless and tensionful end-of-the-world (EOW) brane scenarios. We derive recurrence relations for two-point and three-point correlators and examine the impact of non-zero brane tension on correlators. Extending these results, we investigate the holographic duals of XCFTs, presenting explicit scalar and stress tensor correlator computations on projective geometries such as  $\mathbb{RP}^2$ . Additionally, we analyze stress tensor correlators at a finite cutoff, uncovering deformations to one-point and two-point functions induced by the cutoff. Our findings provide novel insights into the holographic structures of BCFT and XCFT while laying the groundwork for future research into higher-dimensional extensions.

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