

# Dynamical Cobordism in AdS/CFT

*Tuesday 25 June 2024 17:45 (15 minutes)*

The dynamical realization of the cobordism conjecture in type IIB in  $\text{AdS}_5 \times \text{S}^5$  will be presented, using the existing gravity duals of 4d  $\mathcal{N} = 4$  SYM with Gaiotto-Witten superconformal boundary conditions (near-horizon limits of D3-branes ending on NS5- and D5-branes). These configurations are, from the 5d perspective, dynamical cobordism solutions which start from an asymptotic  $\text{AdS}_5$  vacuum and evolve until they hit an end of the world (ETW) brane with  $\text{AdS}_4$  worldvolume. The latter displays localization of gravity, and provides a completion of the Karch-Randall (KR) AdS branes, in which the backreaction of running scalars replace the KR cusp in the warp factor with a smooth bump.

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**Session Classification:** Parallel session