

Gravity at the Tip of the Throat

Warped throats have been used in countless works in the context of string theory compactifications, in particular for their ability to suppress high energy scales. The Klebanov-Strassler solution gives us an explicit description of the geometry of a warped throat which we can use to perform computations — my focus will be on the gravitational sector of the resulting 4d EFT, with its tower of Kaluza-Klein (KK) gravitons. By assuming that we live on a (3+1)-dimensional brane somewhere along the throat, we can study how the warping influences the effects of the tower on the brane. In particular, I will show how the tower corrects the Newtonian potential and discuss how gravitational experiments and observations may be used to test the possibility that our Universe corresponds to a brane living in a warped throat.

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