

- **Accidental supersymmetry and the renormalization of co-dimension 2 branes**
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In this talk, I'll give a brief summary of how one-loop bulk effects renormalize both bulk and brane effective interactions for geometries sourced by codimension-two branes. I'll then discuss what these results imply for a six-dimensional supergravity model which aims to capture the features that make extra-dimensional physics attractive for understanding naturalness issues in particle physics. I'll also emphasize the role that brane back-reaction plays in yielding unexpected results, and present a one-loop contribution to the 4D vacuum energy whose size is set by the KK scale.