Moduli Stabilisation for the Dark Dimension Scenario

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Abstract

We realise the Dark Dimension in Type IIB string theory via anisotropic moduli stabilisation of a fibered Calabi–Yau. In the Large Volume Scenario, perturbative corrections stabilise the fibre volume at small values. A hierarchy of the complex structure moduli deforms the base into an "elongated cigar", i.e., a single large extra dimension.

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