

# Fundamental physics in the cosmos: The early, the large and the dark Universe



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## Towards de Sitter from 10D

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Using a 10D lift of non-perturbative volume stabilization in type IIB string theory we find that the simplest KKLT vacua cannot be uplifted to de Sitter upon inclusion of SUSY breaking sources like anti-branes. Rather, the uplift is flattened due to stronger back-reaction on the volume modulus than has previously been anticipated such that the resulting vacua are always AdS. We find that this issue can be circumvented in setups such as racetrack stabilization and reveal its physical origin from the 10D perspective.

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