

THE STRING THEORY UNIVERSE - 22nd European string workshop and Final COST MP1210 Conference



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INVITED TALK 7: Gabriele Honecker

Thursday 23 February 2017 10:50 (35 minutes)

Title: Deformations, Moduli Stabilisation and Loop-Corrected Gauge Couplings for Particle Physics on D-Branes

MSSM and GUT spectra on D-branes in toroidal orbifold backgrounds provide a class of string vacua, where geometric properties and their effects on physical couplings can be studied in detail. I will discuss how twisted deformation moduli are stabilised by the mere presence of D-branes, while others appear as flat directions, on which tree-level gauge couplings can depend. Their effects have to be weighted against the one-loop threshold corrections to gauge couplings, whose size in turn depends on Kähler moduli, which under certain conditions can give rise to LARGE volumes.