XIX AVOGADRO MEETING on Strings, Supergravity and Gauge Theories



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## Freund-Rubin compactifications of non-supersymmetric strings

Wednesday, 20 December 2023 14:30 (10 minutes)

I will discuss Freund-Rubin compactifications of tachyon-free superstring theories that have no spacetime supersymmetry in their ten-dimensional formulation. A common feature of these models is the presence of scalar potentials in the low-energy physics, known as tadpole potentials, which correspond to vacuum energies in quantum field theories.

These tadpole potentials can play crucial roles in flux compactifications, and one can engineer Freund-Rubin vacua by balancing tree-level fluxes with one-loop vacuum energies. I will comment on the stability of these solutions and their connections with charged branes.

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