SUSY24: The 31st International Conference on Supersymmetry and Unification of Fundamental Interactions



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Euclidean flows, solitons, and wormholes in AdS space from M-theory

Thursday 13 June 2024 17:30 (20 minutes)

I will present some multi-parametric families of non-supersymmetric EAdS4 flows as well as asymptotically EAdS4 solitons and wormholes, which are constructed within the four-dimensional SO(8) gauged supergravity that describes the compactification of M-theory on S7.

I will also comment on the computation of the on-shell action and gravitational free energy for the regular solutions, the latter being zero for the wormholes.

Lastly, I will discuss the presence of special loci in parameter space yielding solutions with enhanced (super)symmetry, and describe the uplift of these examples to Euclidean solutions of eleven-dimensional supergravity.

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