

VII Leopoldo García-Colín Mexican Meeting on Mathematical and Experimental Physics



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LEONARDO PATIÑO: Thermodynamics of D7-branes in supergravity warped black holes.

Monday, 17 February 2020 19:30 (30 minutes)

A way to construct a warped black hole in IIB supergravity will be presented. The two parameters that characterize the resulting solution are the size of the horizon and the warping factor. A D7-brane will be embedded in this background in such a way that a particular asymptotic behavior is achieved. Depending on the value of the parameters of the black hole, the embedding of the D7-brane can be of two different types that are distinguish from each other by their thermodynamic properties, corresponding to separate phases of the D7 in this family of backgrounds. The computation of some of the aforementioned thermodynamic quantities will be presented, along with a phase diagram over the parameter space of the black hole.

Session Classification: SHORT TALKS

Track Classification: SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES