Universidade Federal da Paraíba
Centro de Ciências Exatas e da Natureza
Programa de Pós-Graduação *Stricto Sensu* em Física

Colóquio

"Higher-derivative massive gravity on a two-dimensional brane in 4D Minkowski space"

RESUMO: In this talk we revisit the problem of localizing gravity in a 2-brane embedded in a 4D Minkowski space to address induction of high derivative massive gravity. We explore the structure of propagators to find well-behaved higher-derivative massive gravity induced on the brane. Exploring a special case in the generalized mass term of the graviton propagator we find a model of consistent higher order gravity with an additional unitary massive spin-2 particle and two massless particles: one spin-0 particle and one spin-1 particle. The condition for the absence of tachyons is satisfied for both `right' and `wrong' signs of the Einstein-Hilbert term on the 2-brane. We also find the Pauli-Fierz mass term added to the new massive gravity in three dimensions and recover the low dimensional DGP model.

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