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Gravitational Positivity Bounds and the Standard Model

Thursday, 25 November 2021 10:00 (30 minutes)

Positivity bounds on low-energy scattering amplitudes provide a criterion for a low-energy effective theory to have a standard UV completion. When applied to gravitational theories, they are expected to imply non-trivial quantum gravity constraints on quantum field theory models, i.e., swampland conditions. In this talk I will introduce recent developments on positivity bounds in gravitational theories and their implications for the Standard Model of particle physics.

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