Phenomenology 2019 Symposium



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Scattering of Massive Spin-2 Particles at High Energies

Tuesday 7 May 2019 16:30 (15 minutes)

The scattering amplitude for massive spin-2 particles at high energies suffers from growth proportional to energy to the tenth power. In this talk we discuss the origin of this bad high-energy behavior, how it must necessarily be mitigated in the case where the massive modes arise from a compactified theory of gravity, and we outline how the cancellations necessary to reduce this growth to energy-squared arise in compactified five-dimensional theories of gravity. We give a physical interpretation of these results, and we compare with the parallel case of massive spin-1 particle scattering in compactified five-dimensional gauge theories.

Summary

Author: Prof. CHIVUKULA, R. Sekhar (UC San Diego)Presenter: Prof. CHIVUKULA, R. Sekhar (UC San Diego)Session Classification: Theoretical Developments