

Scalar Particles at the late-time boundary of de Sitter

Thursday 20 April 2023 11:30 (1 hour)

In quantum field theory on flat spacetime, analysis of the representations of the isometry group of spacetime with a vanishing cosmological constant has led to our current understanding of particle physics. In this talk we would like to discuss what can be learned about particles of a spacetime in the presence of a positive cosmological constant by studying the representations of the isometry group of de Sitter. We make use of the late-time behaviour of free scalar fields to address features of different categories of representations of the de Sitter group with focus on normalized single particle states.

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