Progress on Old and New Themes in cosmology (PONT) 2017



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Evaporation of the de Sitter horizon

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The exponentially expanding de Sitter solution is frequently encountered in cosmology due to its significance for the late and early Universe. However, its stability in a quantised theory has for a long time been the source of debate. In this talk we discuss this issue in the framework of semi-classical gravity. Based on a first principle calculation, we argue that when one considers only those degrees of freedom that are accessible to a local observer, the quantum back reaction destabilizes de Sitter space leading to a gradual continuous increase of the Horizon

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