A consistent construction for the No Boundary wavefunction of the inflationary universe.

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Abstract

We present a general construction for the No Boundary wavefunction of the universe for some systems of cosmological interest and discuss some features of this result such as bounds for the actions and a discussion about the no boundary construction. Furthermore, we explore the consistency conditions that allow such construction with a homogeneous scalar field that leads to the correct initial conditions for inflation. We explore the behavior of the resulting wavefunction of the universe and the corresponding probability distributions arriving from the original treatment as well as from a more recent proposal.

Keywords: wavefunction of the universe, no boundary, inflation

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