

Abstract Submitted  
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**Monte Carlo Studies of Transitions in Interacting Spacetimes and Scalar Fields** KENDALL MALLORY, Pt Loma Nazarene Univ — We present some numerical studies of simple interactive spacetimes with scalar energy fields by Metropolis Monte Carlo simulations. These studies focus on transitions between phases involving collapsing, expanding and inflating states of spacetime interacting with non-zero ground states of the scalar field. Motivation for these studies arises from theories of cosmic inflation driven by phase transitions and higher dimensional spacetime models in string theory with collapsed dimensions.

Kendall Mallory  
Pt Loma Nazarene Univ

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