

Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Gauge invariant observables in de Sitter IAN MORRISON, University of California at Santa Barbara (UCSB) — The construction of gauge-invariant observables is a longstanding problem in quantum gravity. Cosmologically relevant spacetimes are a particularly interesting context in which to study such observables. Using the technique of group averaging we construct gauge-invariant observables in the case where spacetime is perturbatively global de Sitter. In the appropriate limit these observables reduce to local observables of quantum field theory; additionally, they reproduce the local observable algebra. Bounds on the locality of these observables are briefly discussed.

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Date submitted: 10 Jan 2009

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