

Abstract Submitted
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Unitarity in Quantum Fields Theory in Curved Spacetimes¹ IVAN AGULLO, Louisiana State University, ABHAY ASHTEKAR, PSU — The goal of this talk is to describe an aspect of quantum field theory in time dependent, globally hyperbolic spacetimes which is not commonly appreciated: dynamics is not unitary in the standard sense. This point will be illustrated with a simple cosmological spacetime. I will then shown that a generalized notion of unitarity does hold. This generalized notion allows one to correctly pass to the Schrödinger picture starting from the Heisenberg picture used in the textbook treatments.

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