

The quantum scalar field on Kerr-de Sitter

Wednesday, 30 August 2023 10:30 (40 minutes)

In order to study physical effects of quantum fields on curved spacetimes, one needs appropriate Hadamard states to describe the fields. In this talk, we present a rigorous construction, including the proof of the Hadamard property, of the Unruh state for the free scalar field on slowly rotating Kerr-de Sitter spacetimes. We sketch how this state can be used to compute the stress-energy tensor of the quantum field and present some results of this computation.

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Session Classification: Morning session 1