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Title:"Møller operators and Hadamard states for Proca fields in paracausally related spacetimes"

Abstract: In a recent work with V. Moretti and S. Murro, we developed the framework of geometric Møller operators to compare solutions of normally hyperbolic operators built out of paracausally related spacetime metrics. These operators extend naturally to the quantum CCR algebras, preserve singularities of states and allow to prove the existence of Hadamard states in every globally hyperbolic spacetime. In this talk I am going to recap what the paracausal relation is and how we adapted our tools to apply the construction to the Proca operator, which is Green hyperbolic, but not normally hyperbolic.
A discussion about Proca Hadamard states will follow.