

Abstract Submitted
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Canonical quantization of symmetry reduced gravitational models: recent advances JAVIER OLMEDO, Penn State University — In this talk I will provide a brief summary of some recent advances in symmetry reduced gravitational systems in real connection variables and their canonical quantization. Among them, black hole spacetimes and Gowdy cosmologies are among the most interesting scenarios due to its physical relevance. I will discuss some aspects of the quantum dynamics, semiclassical sectors of these models and the way quantum fluctuations of the geometry may influence the quantum dynamics of test fields on these quantum geometries.

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