

20/05/2020, 16.00 (vai iniciar 16.05 a causa de outro evento programado)

<https://us02web.zoom.us/j/81164730810>

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Loop Quantum Gravity

Abstract: Loop Quantum Gravity provides a well defined tentative framework to describe the quantum properties of gravity. I will describe how the theory preserve and built on the fundamental properties of general relativity and quantum theory, presenting the main ideas and results. The theory, now thirty years old, is built upon a compelling mathematics and exploits techniques close to those used in lattice gauge theory and for many-body systems. One of the main aspect of the theory is the absence of curvature singularities, that leads to a rich phenomenology in cosmology and for black holes: I will conclude presenting some recent ideas about possible astrophysical detections of quantum gravitational effects.