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FRANCISCO TURRUBIATES: Uncertainty relations in arbitrary phase spaces

Thursday, 20 February 2020 19:30 (30 minutes)

Uncertainty relations define one of the main differences between classical mechanics and quantum mechanics and are of fundamental importance in the description of quantum systems. In this talk the construction of uncertainty relations for systems with arbitrary phase spaces by means of deformation quantization formalism is discussed. In particular, the expressions of the so-called Heisenberg-Robertson and Robertson-Schrödinger uncertainty relations for an arbitrary number of observables are obtained. Finally, the conditions to minimize Robertson-Schrödinger's uncertainty relations are analyzed, which allows us to introduce the concept of intelligent states in deformation quantization.

Session Classification: SHORT TALKS

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