

Quantum cosmology: Games without frontiers

Ana Alonso Serrano
IFF - CSIC

Fecha:

Martes 12 de mayo
10:00 h.

Lugar:

Sala de Seminarios FT-I
Facultad de CC. Físicas, UCM

Abstract: In classical General Relativity, the presence of horizons excises parts of the spacetime making inaccessible physical observations beyond them. But, is it so quantum mechanically? We develop a canonical quantization of a minisuperspace model whose classical solutions possess horizons, in order to check that this is not the case: Quantum gravitational states with support in spacetime configurations that exclusively describe either each region of the whole spacetime are not consistent, due to quantum correlations that appear across the horizon, making the physical states of the different regions not separable but entangle.