

SEMINARIO
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TITULO: How much information survives a Cosmological Cataclysm?

LUGAR: FACULTAD DE CIENCIAS FÍSICAS UCM

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ABSTRACT:

By using concepts coming from quantum information and field theory developed in arXiv:1405.3988, we will show that when we measure quantum fields in the current era, there is much more information about the early Universe than meets the eye. In particular we will show how signals carried by minimally coupled massless fields propagate into the whole future the light cone through violations of the strong Huygens principle. We will pay special attention to how information propagates during ‘cosmological catastrophes’, such as the Big Bang or a Big Bounce, all the way to the current era, and how this information depends on the parameters of the underlying quantum gravity model.