

## Seminarios de Física Teórica Fisika Teorikoa: Hitzaldiak

## Quantum Entanglement in the Multiverse

## Sugumi Kanno

IKERBASQUE & UPV/EHU

**Abstract** Inflationary cosmology and the string landscape suggest that our universe may not be the only universe but part of a vast complex of universes that we call the multiverse. Until recently, however, this multiverse idea has been criticized as a philosophical proposal that cannot be tested. However, there may be quantum entanglement between two causally separated universes in the multiverse, and it may produce detectable signatures. I'm going to discuss that quantum entanglement would be able to provide some evidence for the existence of the multiverse.

Seminar Room, Dept. of Theoretical Physics, Corridor 4.-2. Wednesday, JAN 14th, 2015

Time:11:40