



# COLLOQUIUM



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## Cosmological effects in the braneworld paradigm

### Abstract

The last two decades in physics have seen an interesting phenomenon: our four-dimensional world could, in principle, have more than three spatial dimensions without contradiction with experiments and/or observational data. These extra dimensions can solve/reformulate some of the open problems that modern physics faces nowadays, like the gauge hierarchy problem, the cosmological constant problem, among others, within the so-called braneworld paradigm. Here we shall present two cosmological applications: braneworld inflation and the emergence of an expanding universe upon compactification of the higher dimensions.

3:00-4:30 p.m., Friday, August 25<sup>th</sup> in McLane 162