

**SEMINARIO**  
**Departamentos de Física Teórica I y II**  
**Universidad Complutense de Madrid**

**INVITADO:** Diego Sáez-Gómez

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**TITULO:** Non-singular universes and cyclic cosmologies in modified gravity

**LUGAR:** FACULTAD DE CIENCIAS FÍSICAS UCM

**DÍA:** 10 de abril, 2012 (Martes)

**HORA:** 14:30

**AULA:** Seminario Dpto. Física Teórica I, Planta 3ª

**ABSTRACT**

In this talk, I will discuss the problem of future (and past) singularities in cosmology, in the frame of modified gravities and the possibility to avoid such singular scenarios by an ekpyrotic/cyclic cosmological evolution, an alternative description to the usual inflationary paradigm. Hence, I will show that a cosmological evolution free of singularities can be reconstructed in a classical scenario in the frame of modified gravities. The possibility of the occurrence of "pseudo-singularities", as the so-called Little Rip, will be also discussed.