

## DE MADRID AL COSMOS

# AVERAGING AND MODIFIED GRAVITY THEORIES: AN OVERVIEW OF TOOLS ABLE TO EXPLAIN THE COSMOLOGICAL LATE-TIME ACCELERATION

Álvaro de la Cruz Dombriz  
(Universidad Complutense de Madrid)

**Abstract:** One possible explanation for the present observed acceleration of the Universe is the breakdown of homogeneity and isotropy due to the formation of non-linear structures. How the formation of non-linear structures and subsequent inhomogeneities affect the averaged cosmological expansion rate and may eventually lead to late-time acceleration is usually referred to as backreaction mechanism. General Relativity together with dust matter scenarios have until recently been considered as the sole ingredients for averaged calculations. We shall present the backreaction formalism in more general scenarios, including imperfect fluids as well as extended theories of gravity, and apply an averaging procedure to them in order to determine possible backreaction effects.

**Fecha:**

Martes 1 de abril  
10:00 h.

**Lugar:**

Sala de Conferencias  
CFMAC (CSIC), c/ Serrano, 121



Ciclo de seminarios organizado conjuntamente por los grupos  
· *Teorías Efectivas en Física Moderna* (UCM)  
· *Gravitación y Cosmología* (IEM-CSIC)

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