

DE MADRID AL COSMOS

JUNCTION CONDITIONS IN GRAVITY THEORIES

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Fecha:

Martes 20 de mayo
10:00 h.

Lugar:

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

Abstract: I will present the method to obtain the proper junction conditions in general theories of gravity, highlighting the differences specific to General Relativity (GR) and its peculiarities. As an illustrative example I will consider $F(R)$ Lagrangian theories explicitly.

The discussion will analyze two different junction levels: allowing for branes/thin shells or not. In the former case I will argue that the generic brane/shell construction is crucially different to that in GR. In the latter case I will show that properly matched solutions in GR are no longer solutions of $F(R)$ —and other—theories.

(An exceptional case arises in theories with a Lagrangian quadratic in the curvature: gravitational double layers are feasible, and this leads to new Physics—but I will probably have no time to describe this)



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

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