

DE MADRID AL COSMOS

VACUUM ENERGY (AGAIN), BUT NOW IT SEEMS DARK MATTER

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Abstract: A comoving cutoff is used to renormalize the vacuum stress-energy tensor of a scalar field in RW geometries in a covariant way. At the IR regime (late times) a matter-like contribution dominates. A phenomenological bound to the comoving cutoff is obtained from the current abundance of dark matter. It is also shown that this "dark matter" could support perturbations with a negligible speed of sound, thus it could seed the formation of structures.

Besides, I will present the latest results on the possible variation of the fine structure constant using SDSS-III/BOSS QSO spectra with [OIII] emission lines.

Fecha:

Miércoles 19 nov.
10:30 h.

Lugar:

Sala de Seminarios FT-I
Facultad de CC. Físicas, UCM



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

Página web: <http://loops11.iem.csic.es/madrid-cosmos>

