Séminaire du Laboratoire de l'Accélérateur Linéaire

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LAL

Vendredi 25 Mars 2016 à 11 :00

Constraining Galileon models with recent cosmological data

The Galileon model is a modified gravity theory that may provide an explanation for the accelerated expansion of the Universe. This model does not suffer from instabilities or ghost problems (normally associated with higher-order derivative theories), restores local General Relativity thanks to the Vainshtein screening effect and predicts late time acceleration of the expansion. In this talk, I derive a new definition of the Galileon parameters that allows to avoid having to choose initial conditions for the Galileon field, and then test this model against recent measurements of the cosmological distances and the rate of growth of cosmic structures. I find that the Galileon model is consistent with current observations and is still competitive with the ΛCDM model. It is therefore a model to consider when looking for theories beyond the cosmological constant and can be used as a test model to design future dark energy surveys.

Auditorium Pierre Lehmann du LAL - Bât. 200, Orsay

Thé et café seront servis 5 mn avant le séminaire