

Séminaire LAL

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Mardi 29 octobre 2019 à 11h00

Dark matter and galactic phenomenology

In this talk, we review the dark matter conundrum, focusing on the current small-scale problems faced by the standard cosmological model.

These problems might indicate that a better treatment of baryonic physics is still needed in simulations of galaxy formation in the cosmological context, or that something more fundamental is missing from our current picture.

In particular, there is ample observational evidence for an intimate connection between the baryonic surface density and the total gravitational field in galaxies. We show why this observational fact still presents a problem for the collisionless dark matter interpretation of mass discrepancies at these scales, and we discuss the pros and cons of various alternatives.

Salle 101 - Bât. 200, Orsay

Organisation :

Joao Coelho - Thibaud Louis - Aurélien Martens - Dimitris Varouchas (LAL) - seminaires@lal.in2p3.fr

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