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JOHANNES GUTENBERG UNIVERSITÄT MAINZ

PRISMA+ Colloquium

Nov. 29, 2023 at 1 p.m.
Lorentz-Raum, 05-127, Staudingerweg 7

Prof. Dr. Laura Lopez Honorez
Univ. Brussels, Belgium

(Non Cold) Dark Matter: at the Interface between Particle Physics & Cosmology

Compelling data from Cosmology tell us that more than 80% of the matter content of the universe is made of Dark Matter (DM). Yet the fundamental properties of DM is still unknown. In my talk, I will assume that DM is a particle beyond the Standard Model of Particle physics.

You usually hear that DM should be cold and not hot. Yet it can be warm. The referent will discuss under which condition "non-cold" dark matter can be a good candidate to account for all the DM. In this framework, she will briefly present different mechanisms for dark matter production. She will also show that, even when dark matter interacts very feebly with visible matter, the interplay between particle physics and cosmology experiments is a key in probing the dark matter nature.

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