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Particle Physics at LPTHE

Vendredi 28 Juin 2024, 14:00

LPTHE, Library Domaines : hep-ph

 ${\bf Titre:}\ Thermal\ dark\ photon\ dark\ matter\ and\ a\ long-lived\ axion\ mediator$

Orateur : Bastian Jaime Diaz Saez (Pontificia Universidad Católica de Chile)

Résumé: In this talk I am going to present about my recent work on the thermal freeze-out of a dark photon dark matter in the dark axion portal: a triple coupling among an axion-like particle, a dark photon, and the SM photon. We pay special attention to the coscattering regime (aka conversion-driven freeze-out). Furthermore, we explore a few prospects of having the axion as a long-lived particle, possibly to be searched at the LHC and future experiments.