SEMPARIS – Séminaires en région parisienne

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Particle Physics at LPTHE

Mardi 17 Décembre 2019, 14 :00
LPTHE, library
Domaines : hep-ph

Titre : *Spectator Dark Matter*

Orateur : **Tommi Tenkanen (John Hopkins)**

Résumé : *The observed dark matter (DM) abundance in the Universe can be fully accounted for by a minimally coupled spectator scalar field that was light during cosmic inflation. In this scenario, dark matter was produced during inflation by amplification of quantum fluctuations of the spectator field. I will discuss the DM isocurvature perturbations that are unavoidably generated in such scenarios and the circumstances under which they are not problematic for the viability of non-thermal DM models. I will also discuss implications of DM isocurvature for structure formation, showing that the model has interesting consequences which allow one to test the scenario.*