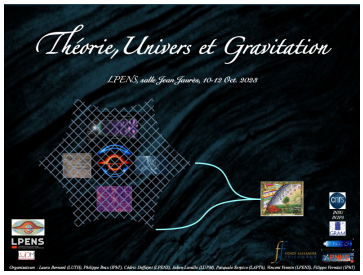

ID de Contribution: **50** Type: **Non spécifié**

Jordan Koechler (LPTHE): X-rays constraints on sub-GeV Dark Matter

mercredi 11 octobre 2023 16:15 (20 minutes)

In this talk, I will present updated constraints on 'light' dark matter (DM) particles with masses between 1 MeV and 5 GeV. In this range, we can expect DM-produced e^{+-} pairs to upscatter ambient photons in the Milky Way via Inverse Compton, and produce a flux of X-rays that can be probed by a range of space observatories. Using diffuse X-ray data from XMM-Newton, INTEGRAL, NuSTAR and Suzaku, we compute the strongest constraints to date on annihilating DM for 200 MeV < m_{DM} < 5 GeV and decaying DM for 100 MeV < m_{DM} < 5 GeV. I will also discuss possible future developments of these results and this technique.

Orateur: KOECHLER, Jordan (LPTHE - Sorbonne Université)