

Searching for Sterile Neutrino Dark matter with X-ray lines using NuSTAR

Tuesday 3 December 2019 14:30 (20 minutes)

X-ray line searches are sensitive probes for many dark matter models, such as sterile neutrino dark matter in the nuMSM. I will discuss the current status of the experimental efforts, including that of the tentative signal at 3.5 keV. Then I will discuss some recent progress with NuSTAR and its prospects in the near future. Finally, I will talk about the idea of dark matter velocity spectroscopy, a powerful diagnostic tool for tentative dark matter line signals, which is achievable with high-resolution spectrometers, such as XRISM and Athena.

Author: NG, Kenny Chun Yu (GRAPPA, University of Amsterdam)

Presenter: NG, Kenny Chun Yu (GRAPPA, University of Amsterdam)

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