
WDM and Lya-forest: the importance of thermal history

Antonella Garzilli^{*1}, Alexey Boyarsky², Oleg Ruchayskiy¹, and Andrii Magalich²

¹Niels Bohr Institute University of Copenhagen – Denmark

²Lorentz Institute, Leiden University – Netherlands

Abstract

We reanalyse the Ly-alpha forest data from distant and bright quasar spectra at $z \sim 5.0$ that have already been considered off if is compatible with a dark matter constituted by sterile neutrinos of mass $m = 7\text{ keV}$. To put new robust constraints on the thermal history of the universe, we include the evolution of the Ly-alpha forest in the presence of a WDM component.

^{*}Speaker