Phenomenology 2012 Symposium



Contribution ID: 186 Type: parallel talk

KeV Warm Dark Matter and Composite Neutrinos

Monday 7 May 2012 17:00 (15 minutes)

Abstract:

Elementary keV sterile Dirac neutrinos can be a natural ingredient of the composite neutrino scenario. We'll briefly discuss this scenario, and see that these keV sterile neutrinos naturally have the appropriate mixing angles to be resonantly produced warm dark matter (WDM). Alternatively, these sterile neutrinos can be WDM produced by an entropy diluted thermal freeze-out, with the necessary entropy production arising from the confinement of the composite neutrino sector, provided there is sufficient supercooling.

Author: ROBINSON, Dean (Cornell University)

Co-authors: TSAI, Yuhsin (Fermilab/Cornell); GROSSMAN, Yuval

Presenter: ROBINSON, Dean (Cornell University)

Session Classification: DM I