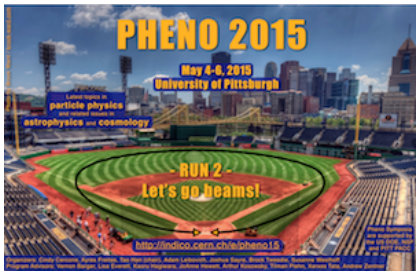

Contribution ID: **3** Type: **parallel talk**

Conformal Inverse Seesaw and Warm Dark Matter

Tuesday 5 May 2015 14:30 (15 minutes)

In this work we discuss generic model building consequences in the conformal framework and demonstrate their implications in the conformal inverse seesaw on neutrino mass phenomenology and the dark matter abundance. We find that low energy particle physics observables favour a scenario with heavy pseudo-Dirac sterile neutrinos, which in the conformal framework conspire with the electroweak scale to generate keV scale warm Dark Matter. The mass scale relations provide naturally the correct relic abundance due to a freeze-in mechanism. We demonstrate in this work how scale symmetry decouples the right-handed neutrino mass scale and effective lepton number violation, as all fermionic mass scales arise as a result of Yukawa type interactions

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