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Testable Baryogenesis and Leptonic CP Violation in Seesaw Models

Thursday 10 August 2017 16:00 (15 minutes)

I will revisit the production of baryon asymmetries in the minimal type I seesaw model with two heavy Majorana singlets in the GeV range. Beside the tree level top scattering we include scattering processes on gauge bosons as well as $1 \rightarrow 2$ processes of Higgs decay and inverse decays, that can contribute significantly to the wash-out effect.

I will show that the region of parameter space that can account for the right baryon asymmetry overlaps considerably

with the future experiment SHIP and FCC sensitivity regions. Finally I will show the relevant implication for determining leptonic CP-violation and actual prediction of the baryon asymmetry from a hypothetical positive measurement in SHiP.

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