

Gaugino Portal Baryogenesis

Tuesday, 21 May 2019 16:40 (15 minutes)

We will discuss baryogenesis via a gaugino portal, the supersymmetric counterpart to the widely studied kinetic mixing portal, to a hidden sector. We will examine this mechanism within various scenarios, including freeze-in or freeze-out of the hidden sector gaugino, as well as extended frameworks where the hidden sector contains a weakly interacting massive particle (WIMP) dark matter candidate. This mechanism can produce the desired asymmetry over a wide range of mass scales, including for hidden gaugino masses as low as 10 GeV. We will also discuss possible related signals with direct collider searches, at low energy experiments, and in dark matter direct and indirect detection.

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Session Classification: Supersymmetry: Models, Phenomenology and Experimental Results

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