

B-L neutralino Dark Matter

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Abstract content

It is remarkable that gauging the superfields under $U(1)\{B-L\}$ implies R -Parity conservation thus, the minimal $B-L$ extension of the MSSM contains naturally DM candidate. We analyze the supersymmetric extension $SU(3)_c \times SU(2)_L \times U(1)_Y \times U(1)\{B-L\}$ in the DM context. In particular, we study the possibility to generate neutrino masses due to a double see-saw mechanism, we compute also the impact of the extra fields to the Higgs sector, and finally we perform an analysis to determine the DM relic density generated within the model.

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