

Electroweakinos with GAMBIT

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We introduce the GAMBIT framework for global scans and its collider physics module ColliderBit, and show results from a recent scan of the electroweak fermion sector of the Minimal Supersymmetric Standard Model (MSSM) in light of LHC searches at 13 TeV and older LEP results. We take particular care to avoid assumptions from specific realizations of the MSSM that automatically prohibit very light neutralinos, and remain agnostic on its relationship with dark matter, in order to focus on the collider implications for the sector. We find that the strict bounds seemingly implied by simplified model interpretations of the LHC data are not borne out in the scan.

Primary author: RAKLEV, Are (University of Oslo (NO))

Presenter: RAKLEV, Are (University of Oslo (NO))

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