

## Testing light neutralino dark matter with multi-tau signals at the LHC

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Light neutralino dark matter in the MSSM is only consistent with WMAP observations in a corner of the parameter space with peculiar features, which imply that other SUSY particles must be light, in particular the lightest stau and higgsino-like neutralinos and charginos. These states can be copiously produced at the LHC via electro-weak Drell-Yan and lead to peculiar multi-tau and missing  $E_T$  signatures. We discuss the LHC potential of fully testing the light neutralino parameter space and the complementary information one can obtain from constraints of the invisible Higgs branching ratio.

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