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Search for compressed supersymmetry using low pT leptons and missing transverse energy with the ATLAS detector

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A search is presented for the electroweak production
of gauginos, the supersymmetric partners of the Standard Model gauge bosons,
in a scenario where the mass difference between the lightest supersymmetric
particle (LSP) and other light gauginos is small, resulting in decays
to virtual W/Z bosons and the LSP.
The search is based on 36 fb^-1 of sqrt(s) = 13 TeV data collected
by the ATLAS detector at the LHC in 2015 and 2016.
The signature is
two or three low transverse momentum (pT) charged leptons (e, mu)
and large missing transverse energy, which is enhanced by
requiring a high pT initial state radiation jet.
The use of very low pT leptons
poses challenges for triggering, particle identification, and background
estimation.

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