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# pTmiss reconstruction and performance with Run-2 and Run-3 data at the ATLAS experiment

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This poster presents the reconstruction of missing transverse momentum (pTmiss) in proton-proton collisions, in Run-2 and Run-3 data-taking at the ATLAS experiment. This is a challenging task involving many detector inputs, combining fully calibrated electrons, muons, photons, hadronically decaying τ-leptons, hadronic jets, and soft activity from remaining tracks. Several pTmiss 'working points' are defined with varying stringency of selections, which balance improving resolution or bias for both Run-2 and Run-3. The pTmiss performance is evaluated using data and Monte Carlo simulation, primarily using events consistent with leptonic Z-decays. Finally, methods used to calculate systematic uncertainties on the soft pTmiss component are presented, including recent progress on a novel approach to fully calibrate the soft term.

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