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Jet Energy Scale Uncertainty using Single Particle Response Measurements

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We present a generic approach that deals with jet constituents to derive the jet energy scale (JES) uncertainty. It uses single-particle E/p response measurements obtained from 13 TeV Run 2 LHC data from proton-proton collisions. The E/p method offers a higher level of precision compared to the traditional pT-balance method, but, is in good agreement with it. Both methods are combined to derive the JES. The final output of this combination results in a significant improvement in JES uncertainty across a wide range of jet pT values. Join us as we unveil key insights and advancements in the precise determination of jet energy scales.

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