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## **Transverse energy flow and charged particle event shapes with ATLAS**

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The transverse energy flow and charged track properties provide insight on the structure of the hadronic events, for soft collisions as well as events with a presence of hard scale. The observables studied include the transverse thrust, thrust minor and transverse sphericity, each defined using the momenta perpendicular to the beam direction of the final state charged particles. In addition to the differential distributions, the evolution of each event shape variable as a function of the leading charged particle transverse momentum, charged particle multiplicity and summed transverse momentum is presented.

The analysis also includes the sum of the transverse energy of particles as a function of particle pseudorapidity, using calorimetry information. The distributions are compared to the predictions of various Monte Carlo event generators, which generally tend to underestimate the amount of transverse energy at high pseudorapidity.

**Author:** COLLABORATION, ATLAS

**Presenter:** KAR, Deepak (University of Glasgow (GB))

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