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Type: **Poster**

Vertex Reconstruction and Performance in ATLAS

Monday 11 September 2017 16:40 (15 minutes)

Efficient and precise reconstruction of the primary vertices in LHC collisions is essential in both the reconstruction of the full kinematic properties of a hard-scatter event and of soft interactions as a measure of the amount of pile-up. The reconstruction of the primary vertices in the busy, high pile up environment of the LHC is a challenging task. The challenges and novel methods developed by the ATLAS experiment to reconstruct vertices in such environments will be presented. The performance of the current vertexing algorithms using Run-2 data will be presented and compared to results from simulation. Additionally, data-driven methods to evaluate vertex resolution, and details of upgrades to the ATLAS inner detector will be presented.

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Session Classification: Poster Exposition and coffee break