

Tracking POG plots for VERTEX 2012

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cms-pog-conveners-tracking@cern.ch

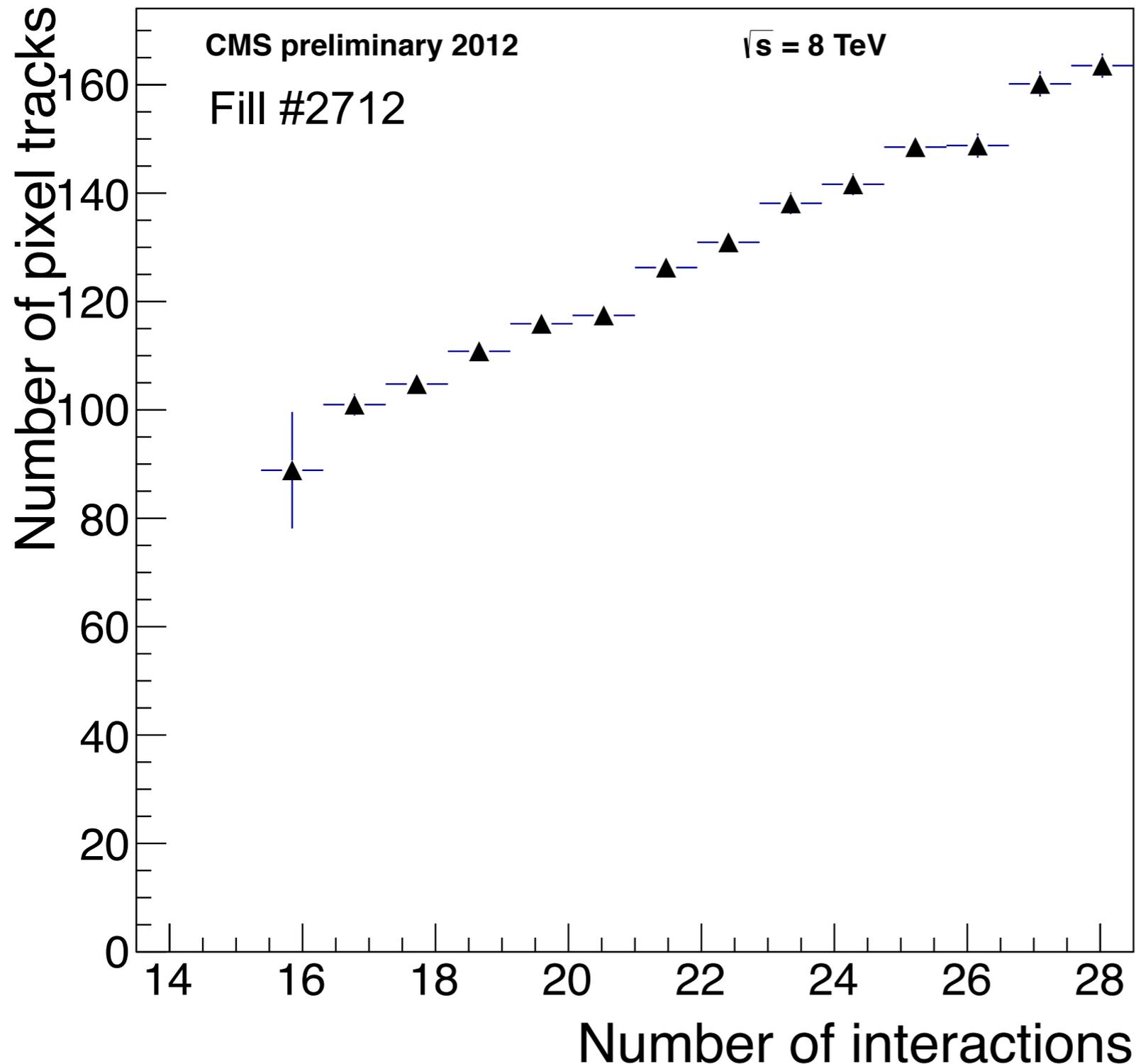
HLT Tracking Plots

HLT tracking

Events preselection

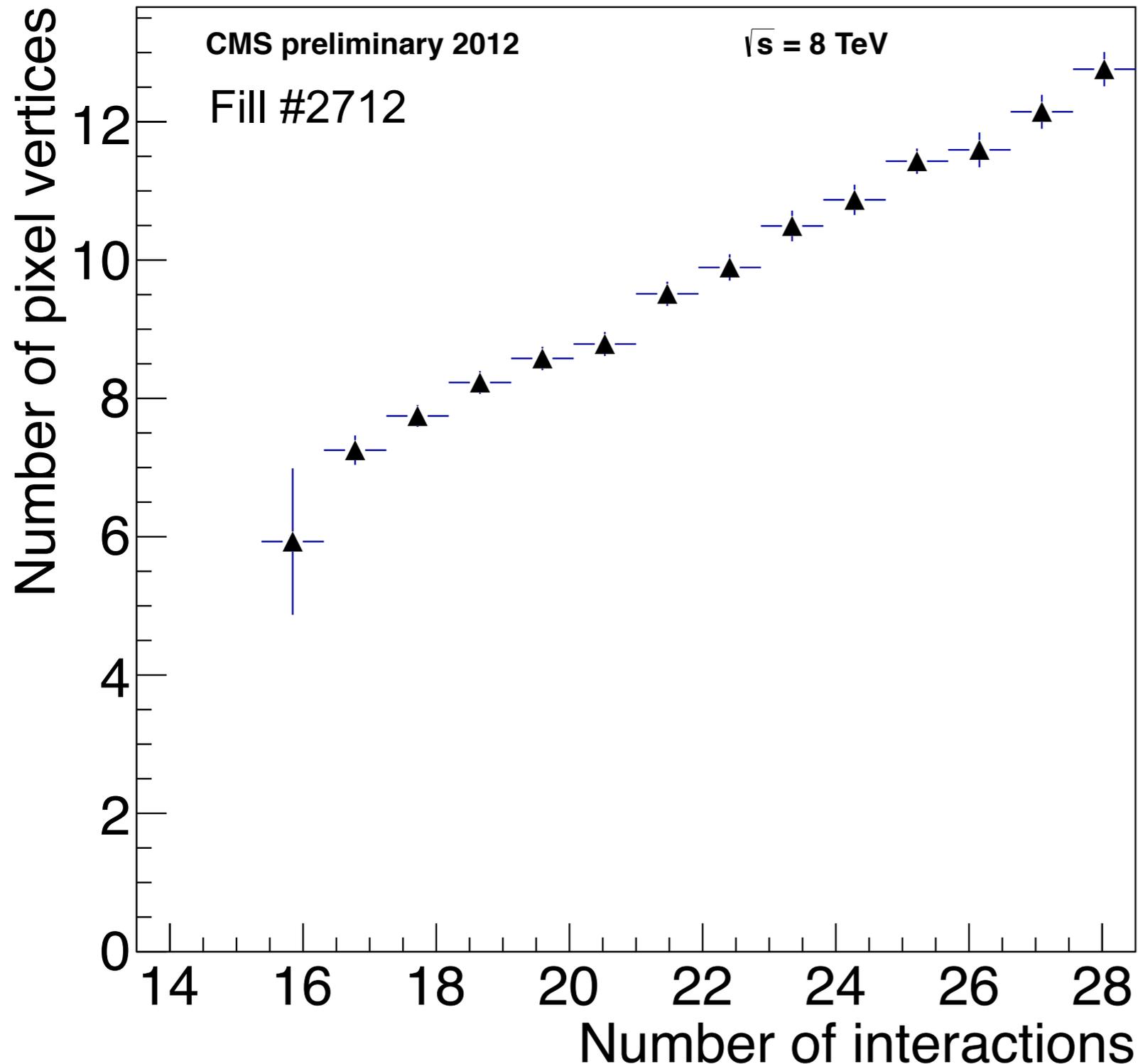
- All plots from a single run (195774) with a Pile-Up comprised between 16 and 28 interactions per bunch crossing.
- Tracks reconstructed by using only the Pixel detector (“pixel tracks”): built from triplet hits; $P_T > 0.1 \text{ GeV}$; cluster shape compatibility applied.
- Vertices reconstructed by using only the Pixel detector (“pixel vertices”): divisive vertex finder (only z position calculated, xy from the beamspot); using tracks with $P_T > 1 \text{ GeV}$; at least three tracks per vertex.

HLT tracking



Number of reconstructed tracks as a function of the nominal number of interactions (Pile-Up), computed from the instantaneous luminosity (measured with the HF) and the pp inelastic cross section. The measurement is done during the LHC fill #2712. Tracks reconstructed from pixel hits only.

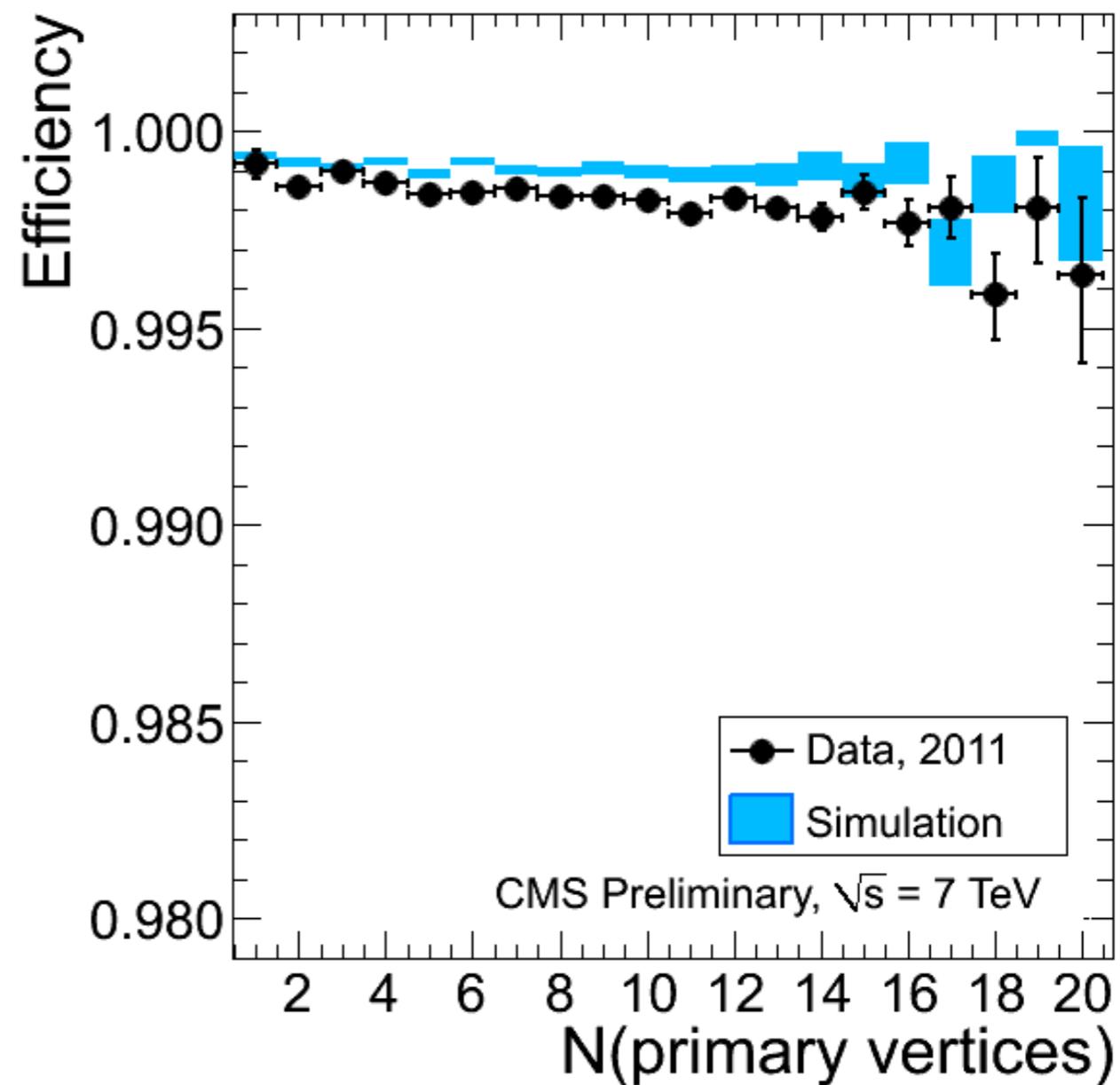
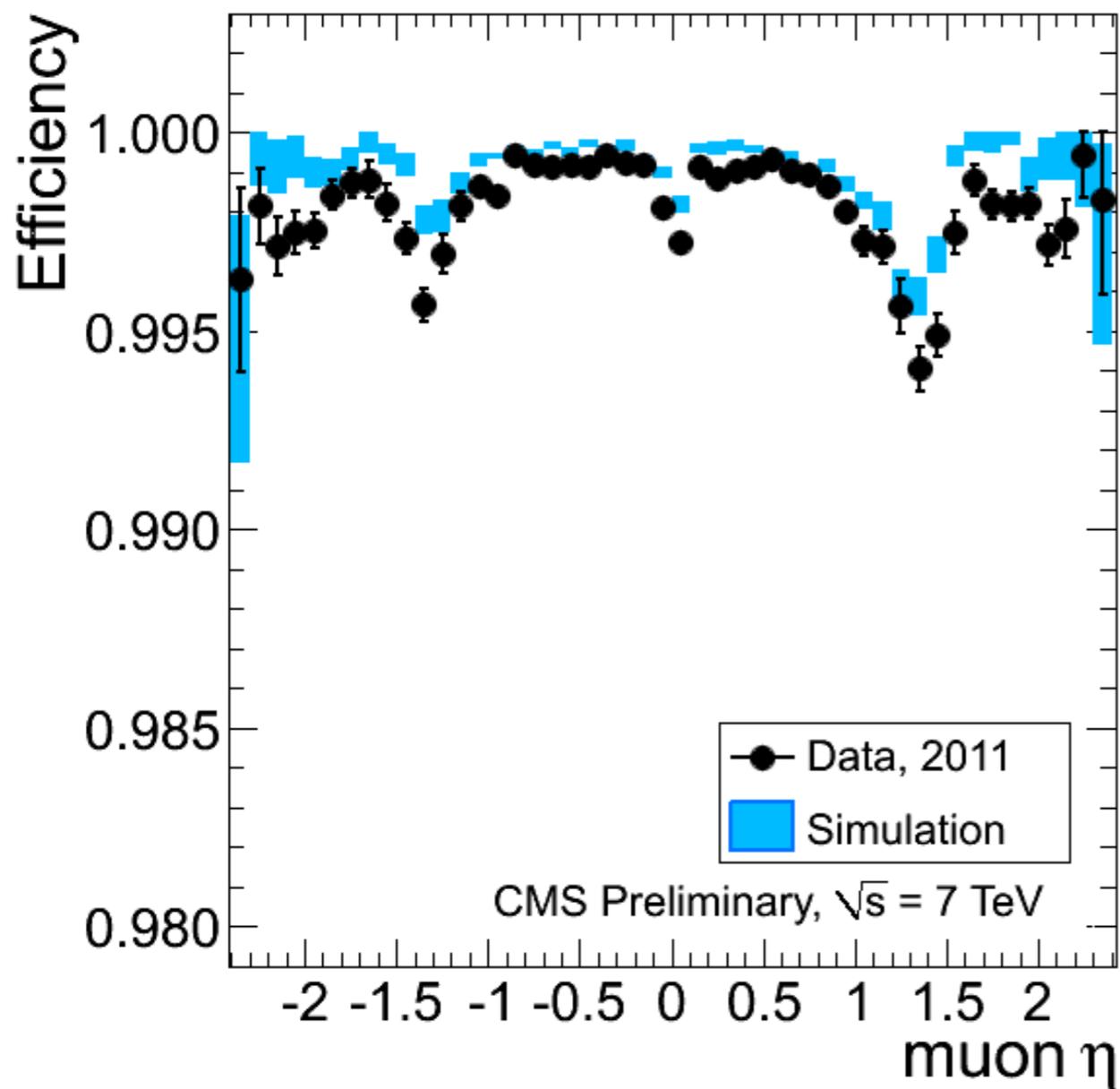
HLT tracking



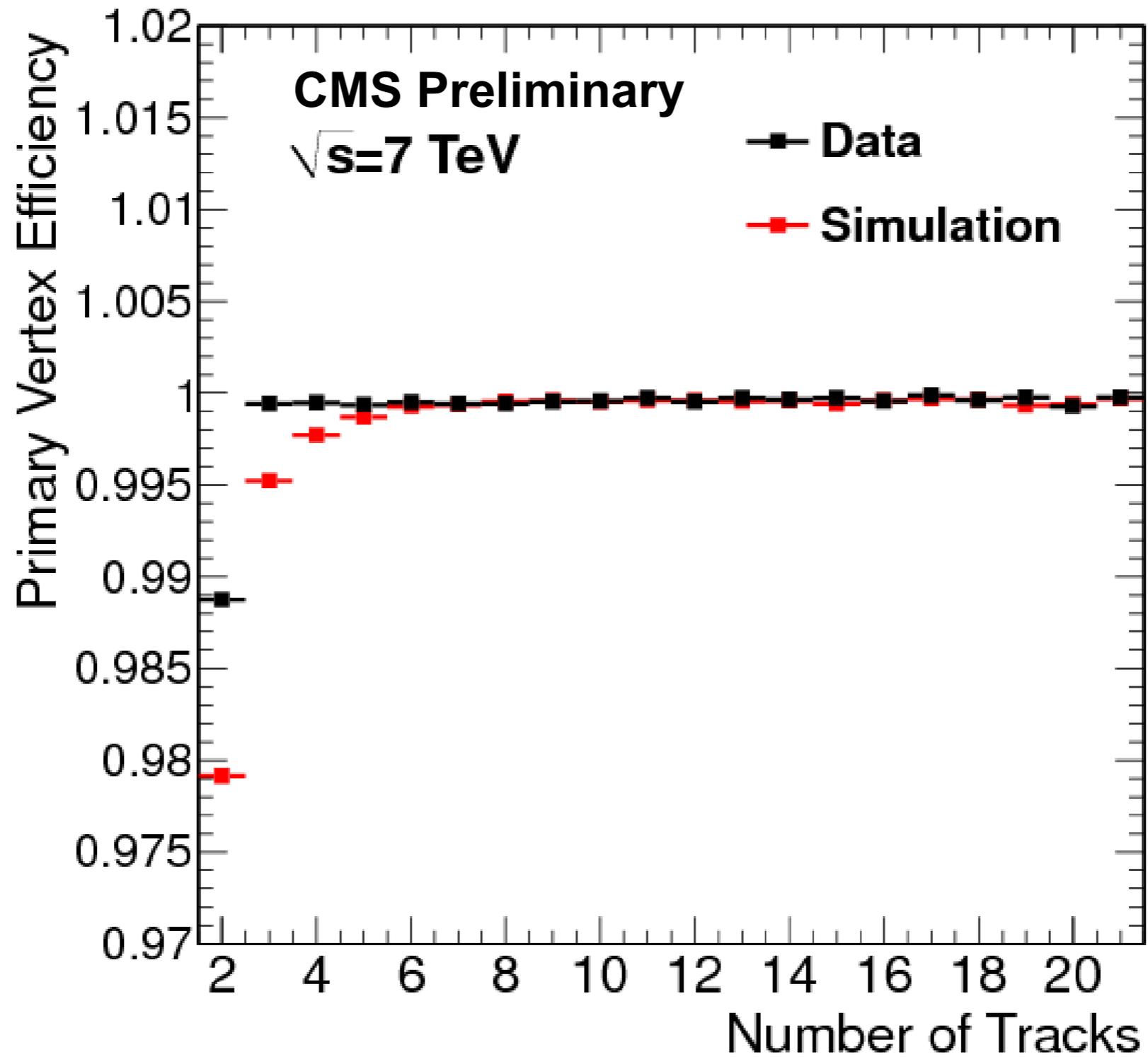
Number of reconstructed vertices as a function of the nominal number of interactions (Pile-Up), computed from the instantaneous luminosity (measured with the HF) and the pp inelastic cross section. The measurement is done during the LHC fill #2712. Tracks reconstructed from pixel hits only.

Offline Tracking Plots

$Z \rightarrow \mu\mu$ tag and probe



Vertex efficiency from split method



Primary Vertex resolution from split method

