Contribution ID: **140**

Type: **Poster**

CMS tracking performance in Run 2 and early Run 3 data using the tag-and-probe technique

Monday, 24 October 2022 11:00 (30 minutes)

Accurate reconstruction of charged particle trajectories and measurement of their parameters (tracking) is one of the major challenges of the CMS experiment. A precise and efficient tracking is one of the critical components of the CMS physics program as it impacts the ability to reconstruct the physics objects needed to understand proton-proton collisions at the LHC. In this work, we present the tracking performance measured in data where the tag and-probe technique was applied to $Z \longrightarrow \mu^+\mu^-$ di-muon resonances for all reconstructed muon trajectories and the subset of trajectories in which the CMS Tracker is used to seed the measurement. The performance is assessed using LHC Run 2 at $\sqrt{s}$ = 13 TeV and early LHC Run 3 data at $\sqrt{s}$ = 13.6 TeV.

Significance

References

Experiment context, if any

CMS experiment

Primary authors: D'ANZI, Brunella (Universita e INFN, Bari (IT)); CMS COLLABORATION

Presenters: D'ANZI, Brunella (Universita e INFN, Bari (IT)); CMS COLLABORATION

Session Classification: Poster session with coffee break

Track Classification: Track 2: Data Analysis - Algorithms and Tools