NOvA Beam Stability

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Introduction

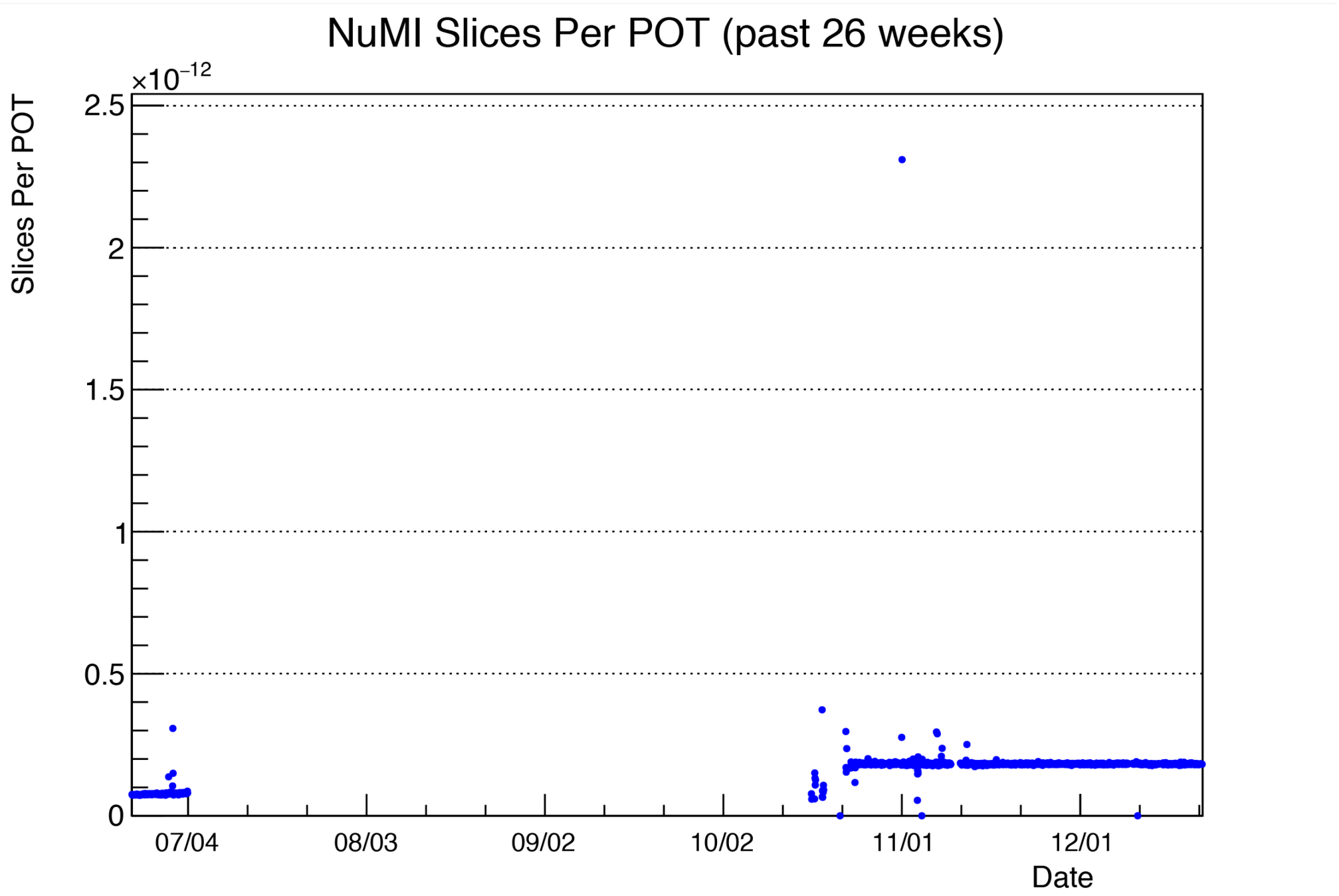
- NOvA offers another view of the NuMI beam, and potentially another way to spot beam features as they develop

- This presentation will show our first attempts at producing data stability plots in the style of the MINOS data quality monitoring plots

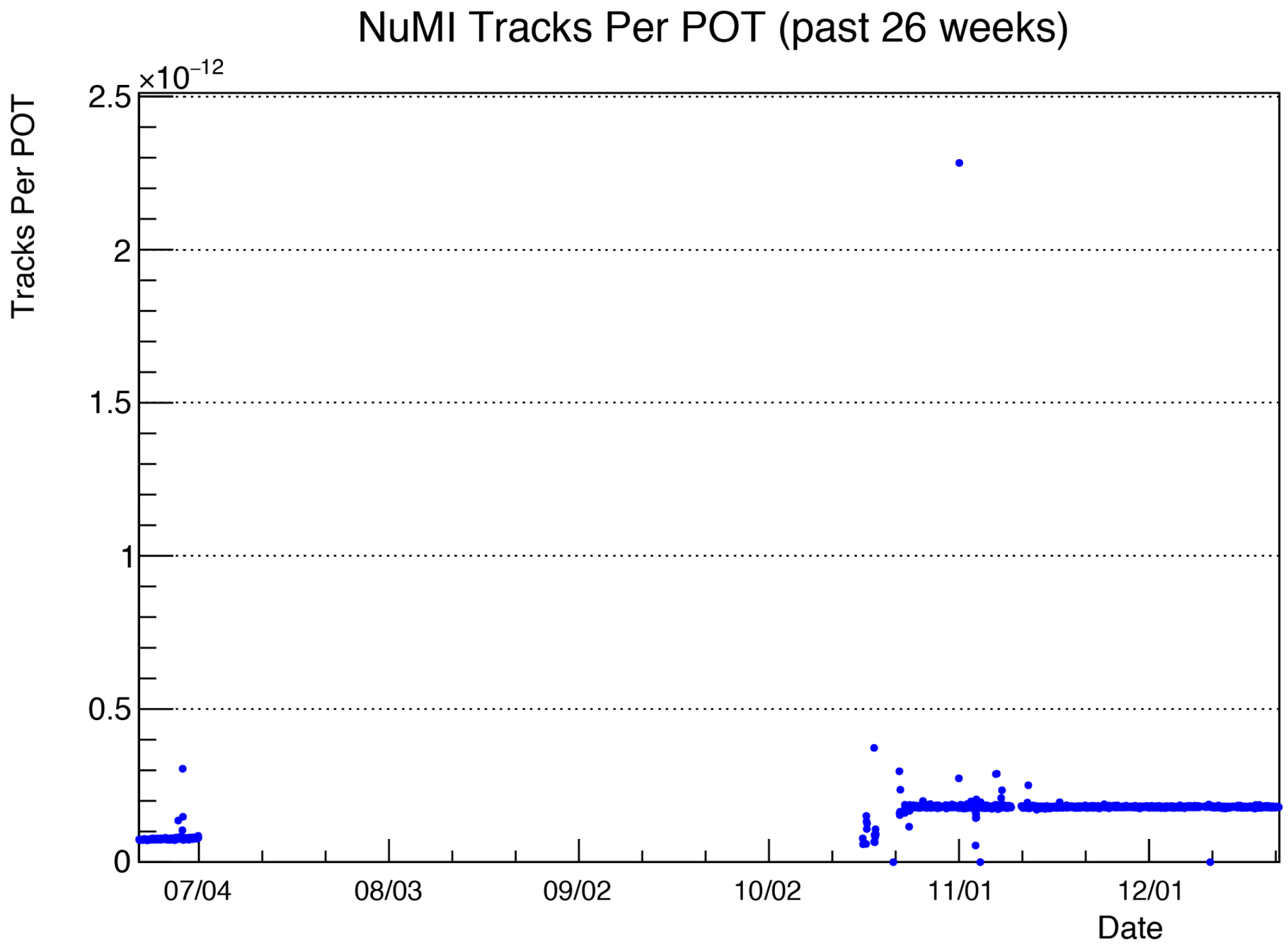
Method

- Working with data before full reconstruction, which means that our selection criteria/quanties is very basic:
  - We take any run with non zero PoT
  - Slices are our most basic reconstruction quantity, to a high accuracy a single physics event in the detector
  - Tracks are from a primitive non kalman tracking algorithm

Slices per PoT Over Time



Tracks per PoT Over Time



Summary: Plans

- No signs of instability in these first, detector activity per PoT plots

- Obviously very basic and can convolve detector and beam effects

- Moving forward we plan to use more of the tools from our physics analyses in to produce a more comprehensive set of beam stability plots- watch this space!