A Preliminary Phase Space Data Analysis of the MICE Beam Line

The Muon Ionization Cooling Experiment tests one lattice section of a cooling channel suitable for conditioning the muon beam at the front end of a Neutrino Factory or Muon Collider. A first analysis of Step 1 data will be presented, in which 50 ps resolution timing detectors are used to reconstruct the transverse phase space vectors of individual muons. Measurements of the optical parameters of the beam are used to evaluate the performance of the beam line, and to simulate the evolution of a real beam in a simulated full lattice section of MICE.