

The NuSTORM Facility-Muon Storage Ring and Injection

We present the design of a muon storage ring for a Neutrino source from a STORage ring for Muons (NuS-TORM). In this facility a high-intensity proton beam produces ~ 5 GeV pions that decay into muons that are captured in a ~ 3.8 GeV/c racetrack storage ring. Muon decays in the long straight sections provide neutrino beams of precisely known flux and flavor that can be used for precision measurements. Design and simulation of the storage with calculations of injection and storage efficiency are presented.

Primary author: NEUFFER, David (Fermilab)

Co-authors: BROSS, Alan (Fermilab); LIU, Ao (Fermilab)

Presenter: NEUFFER, David (Fermilab)