

Abstract Submitted
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MANX, a 6-D Muon Cooling Experiment¹ MARY ANNE CUMMINGS, Muons, Inc., MANX COLLABORATION² — The MANX experiment is to prove that effective six-dimensional (6D) muon beam cooling can be achieved in a Helical Cooling Channel (HCC) using ionization-cooling with helical and solenoidal magnets in a novel configuration. The aim is to demonstrate that 6D muon beam cooling is understood well enough to plan intense neutrino factories and high-luminosity muon colliders. The experiment consists of the HCC magnets that envelop a liquid helium energy absorber, upstream and downstream instrumentation to measure the particle or beam parameters before and after cooling, and emittance matching sections between the detectors and the HCC. Studies are presented of the effects of detector resolution and magnetic field errors on the beam cooling measurements.

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²proposal in progress

Mary Anne Cummings
Muons, Inc.

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