

The SHiP experiment at CERN

Thursday, 25 May 2017 14:36 (18 minutes)

SHIP is a new general purpose fixed target facility, whose Technical Proposal has been recently reviewed by the CERN SPS Committee and by the CERN Research Board. The two boards recommended that the experiment proceeds further to a Comprehensive Design phase in the context of the new CERN Working group "Physics Beyond Colliders", aiming at presenting a CERN strategy for the European Strategy meeting of 2019. In its initial phase, the 400GeV proton beam extracted from the SPS will be dumped on a heavy target with the aim of integrating 2×10^{20} pot in 5 years. A dedicated detector, based on a 30m long and 5x10m wide vacuum tank followed by a spectrometer and particle identification detectors, will allow probing a variety of models with light long-lived exotic particles and masses below $O(10) \text{ GeV}/c^2$. Another dedicated detector will allow the study of neutrino cross-sections and angular distributions. and tau neutrino deep inelastic scattering cross sections and is based on the OPERA emulsion brick technology. The talk will focus on the detector design and on beam test results that are being carried out

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Session Classification: R2-Experimental detector systems(5)

Track Classification: Experimental detector systems