

MINOS Lessons for the NuMI Beam Flux

The MINOS(+) experiment took neutrino oscillation data in the NuMI beam from 2005-2016. The MINOS Near Detector (ND), an iron scintillator calorimeter functionally identical to the MINOS Far Detector, is on-axis and, at 1.04km, close to the NuMI Beam target that is used to generate the NuMI neutrino beam. This makes the MINOS ND the best beam flux monitoring device, better than any other instrumentation along the beam line. Because of this, the MINOS ND is even now still in use to monitor the NuMI beam for the NOvA and MINERvA experiments even though the MINOS+ experiment is no longer taking data. Over the years, the MINOS ND has accumulated a treasure trove of data which can be used to study the behaviour of the NuMI beam flux and help understand the beam. In this poster, some conclusions and lessons learned from this data will be presented.

Session and Location

Wednesday Session, Poster Wall #89 (Auditorium Gallery Left)

Poster included in proceedings:

yes

Primary author: Dr HOLIN, Anna (University College London)

Presenter: Dr HOLIN, Anna (University College London)

Track Classification: Poster (participating in poster prize competition)