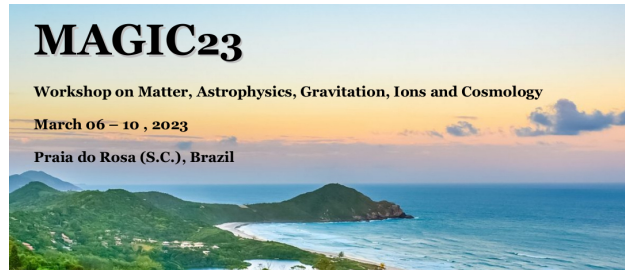


MAGIC23 Workshop (Matter, Astrophysics, Gravitation, Ions and Cosmology)



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Type: Oral

Particle identification studies of e^-/e^+ beams in the Test Beam detector at FERMILAB

Our motivation is to collaborate with the study of neutrinos, in this case of neutrino-matter interactions processes in MINERvA experiment at FERMILAB, USA. We had the problema that MINERvA doesn't have a muon spectrometer and particle identification separation foe e^-/e^+ . We solved the muon problem with the help of the muon spectrometer of ND MINOS experiment. For the e^-/e^+ identification and separation we used the Test Beam detector (a small MINERvA detector replica with some adaptions and improvements). After different studies (Energy absorbed distribution, EM shower starting module, Em shower opening angle) we could identify very well the e^-/e^+ identification separation for the 2-6 GeV range, and with less resolution for 6-8 GeV range

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