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Beam monitoring for beam profile and intensity measurements with GEM detector in-beam and in-phantom - R. Froeschl, S.P. George, F. Murtas, S. Puddu, M. Silari (CERN)

Friday 19 October 2012 11:20 (20 minutes)

The aim of the project is to test a GEM detector for beam monitoring in hadrontherapy facilities, namely to control the characteristics of the beam before entering the patient, its fragmentation and to monitor the non-therapeutic dose to the patient. GEM detectors have already been used for beam monitoring at CERN and at the Frascati INFN Laboratory, for flux measurements of neutrons (n_TOF at CERN and ISIS in England) as well as nuclear fragment monitoring (UA9 experiment at CERN). This detector technology shows good radiation hardness, good spatial resolution and high counting rate capability up to few MHz/mm2. An active area of 100 cm2 makes this type of detector a good candidate for measurements in-phantom and in-beam. Recent results will be shown and discussed, and a proposed experimental program at CNAO will be presented.

Presenter: MURTAS, Fabrizio (Istituto Nazionale Fisica Nucleare (IT))

Session Classification: Talks on proposed experimental activities at CNAO