Contribution ID: **525** Type: **Parallel session talk**

Fragmentation Measurements in Particle Therapy: status and plans of the FOOT experiment

Wednesday, May 26, 2021 10:24 AM (18 minutes)

Due to the advantageous characteristics of charged particles' energy deposition in matter, protons in the energy range of 70-230 MeV or ^{12}C beams with energy up to 400 MeV/u are used in hadrotherapy to treat deep-seated solid tumors. Using these beams, the maximum of the dose is released to the tumor tissues at the end of the beam range. In this process nevertheless, fragmentation of both projectile and target nuclei can occur in the nuclear interactions of the beam with the patient tissues and needs to be carefully taken into account.
The goal of the FOOT (FragmentatiOn Of Target) experiment is to estimate target and beam fragmentation cross sections in the energy range of interest for hadrotherapy, in order to provide new data for medical physicists, radio-biologists and to improve the new generation of Treatment Planning Systems.
In this talk the project, the status of the different sub-systems construction and the plans for the final experiment assembling will be presented.

TIPP2020 abstract resubmission?

Yes, this would have been presented at TIPP2020.

Funding information

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