FAKULTÄT für PHYSIK LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT TECHNISCHE UNIVERSITÄT MÜNCHEN MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 21.01.2016, 16¹⁵ Uhr

Seminarraum 127, TUM, Physik II, Erdgeschoss/Nord Treffen zum gemeinsamen Kaffee 16 Uhr

Prof. Wolfgang Enghardt

(National Center for Radiation Research in Oncology - OncoRay / University Hospital and Medical Faculty C.G. Carus / TU Dresden)

The University Proton Therapy Dresden - a Platform for Clinical, Medical Physics and Radiobiology Research

The University Proton Therapy Dresden (UPTD) has been installed on the campus of the University Hospital Carl Gustav Carus during 2011 and 2014. It has been completely integrated into the Radiotherapy Department. The facility relies on the technology of Ion Beam Applications, SA, Louvain-la-Neuve, Belgium. It comprises an isochronous cyclotron accelerating protons to 230 MeV, one treatment room with an isocentric gantry and a large experimental area with a horizontal beamline. The experimental area has been set into operation in March 2014, the first patient has been treated in December 2014. Meanwhile more than 100 patients, mainly with brain, head and neck and prostate tumours have been treated in Dresden. To facilitate a wide spectrum of tumour entities, the treatment beamline is equipped with passive field formation (double scattering) as well as with pencil beam scanning. During the first two years of operating the facility, medical physics research has been focused on high precision radiotherapy, prompt γ -ray based particle range assessment and neutron dosimetry and spectroscopy. Furthermore, an irradiation device for radiobiological studies with proton beams has set into operation in December 2015.

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