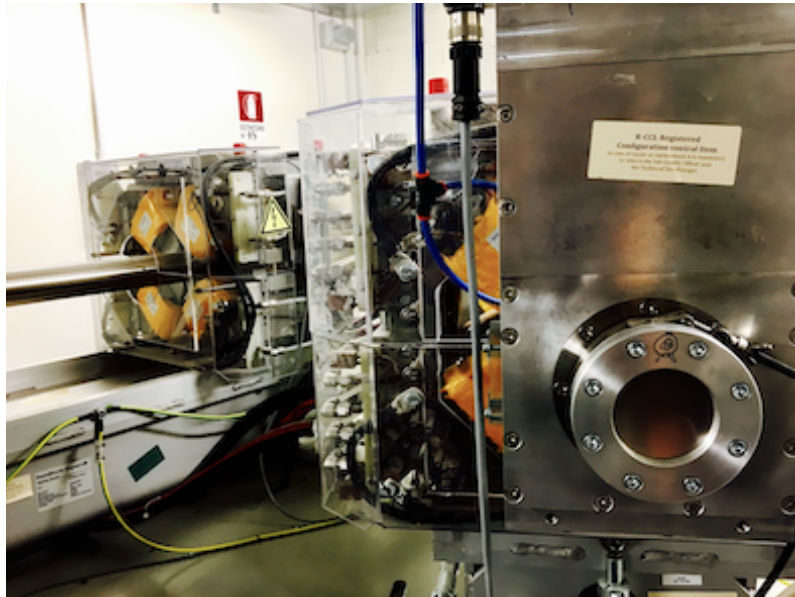


1st Workshop - Trento Proton Beam Line Facility



Monday, 9 November 2020 - Monday, 9 November 2020

Scientific Programme

Preliminary Programme

1st Trento Proton Beam Line Workshop 9th November 2020

9:00-9:30 Introduction

9:30-10:30 Detectors – First Session

Contributions:

R. Catalano (INFN-Laboratori Nazionali del Sud), *Scintillator-based system for transversal dose profile reconstruction for clinical proton beams*

V. D'Avino (INFN Napoli), *Thermoluminescent dosimeters (TLD-100) performance in high-energy proton beam line*

S.M. Carturan (INFN-Laboratori Nazionali di Legnaro), *Responsivity and radiation hardness of siloxane-based scintillators as indirect sensors in the FIRE project under 37 MeV H⁺ irradiation @TIFPA center*

B. Fraboni (Università di Bologna and INFN Bologna), *Direct Detection of MeV Protons by Flexible Organic Thin Film Devices*

M. Missiaggia (Università di Trento and Trento Institute for Fundamental Physics and Applications-TIFPA), *A novel Hybrid Detector design for Microdosimetry applications: HDM*

10:30-10:45 Break

10:45-11:30 Detectors – Second Session

Contributions:

G. Silvestre (INFN Perugia), *Qualification of microstrip silicon sensors @ TIFPA proton beam*

Y. Dong (INFN Milano), *Calibration of the drift chamber detector within the FOOT experiment*

M. Marafini (Università di Roma "La Sapienza" and INFN Roma), *TOPS: Time Of flight Plastic Scintillators*

G. Traini (Università di Roma "La Sapienza" and INFN Roma), *Dose Profiler and MONDO characterisation with proton beams at the Trento proton beam line facility*

11:30-12:30 Radiobiology & related applications

Contributions:

A. Bisio (Università di Trento-Center for Integrative Biology (CIBIO)), *The lack of p21 sensitizes colon cancer cells to radiation-induced apoptosis*

G. Casati (Ospedale Pediatrico "Meyer"- Firenze), *Preliminary results on biological effects and molecular alterations induced by combined proton-therapy and chemotherapy in high-grade glioma treatment*

G. Onorato (Università di Torino and Università della Campania), *Development of C. elegans as a model for studying neurodegeneration in space-related conditions*

D. Boscolo (GSI Helmholtzzentrum für Schwerionenforschung), *Oxygen depletion measurements for different media with energetic proton beams*

M. Würfl (LMU Ludwig-Maximilians-Universität München), *Development of a setup for small-animal proton imaging based on a miniaturized Timepix detector*

12:30-13:30 Lunch Break

13:30-14:30 Medical Physics applications

Contributions:

M. Scaringella (Università di Firenze), *Results on proton Computed Tomography*

C. Civinini (INFN Firenze) , *Proton therapy x-ray CT calibration by proton tomography*

O.A. Marti Villarreal (Università degli Studi di Torino and INFN Torino), **MoVeIT detectors characterization at Trento Proton Beam Line Facility*

G. Cartechini (Università di Trento and Trento Institute for Fundamental Physics and Applications-TIFPA), *Enhancing prompt gammas production for online dose verification in proton therapy*

F. Fausti (DE.TEC.TOR. Devices & Technologies Torino S.r.l.), *Experimental route to QEye, an innovative device for high-resolution range verification in ocular tumour treatments*

14:30-14:45 Break

14:45-15:30 Space Applications

Contributions:

F. Horst (GSI Helmholtzzentrum für Schwerionenforschung), *Dosimetry Experiments from GSI for Therapy and Space Radiation Research at the Trento Proton Therapy Facility*

C. Schuy (GSI Helmholtzzentrum für Schwerionenforschung), *Advanced solar particle event simulation at medical accelerators (CELESTIAL)*

L. Di Fino (Università di Roma "Tor Vergata"), *Lidal calibration at TIFPA proton beam line*

G. DiIillo (Università di Udine and INFN Trieste), *Radiation testing and space qualification of GAGG: Ce scintillator crystals for the HERMES project*

15:30-15:45 Break

15:45-16:45 Round Table

16:45-17:00 Closing Remarks