

CHARM TA

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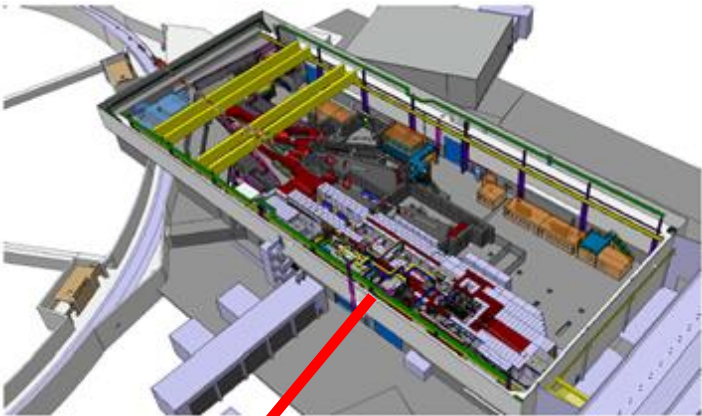
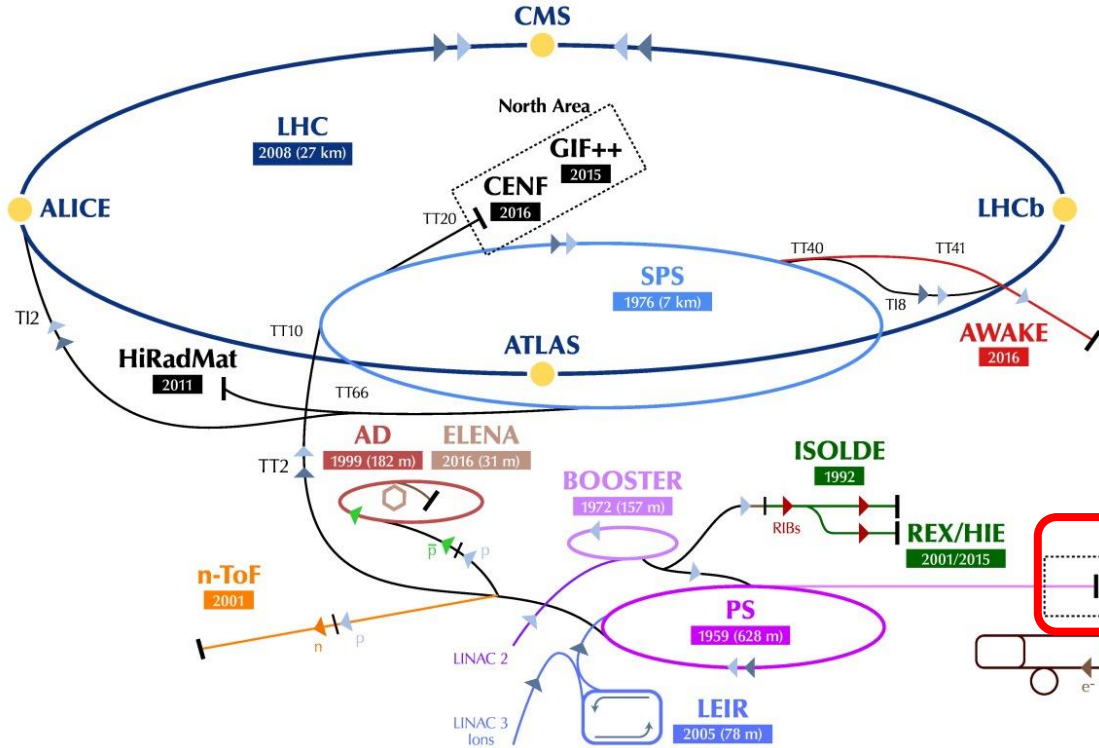
RADNEXT 1st Annual Meeting – 8-9 June 2022

<https://indico.cern.ch/e/radnext-2022>



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Location

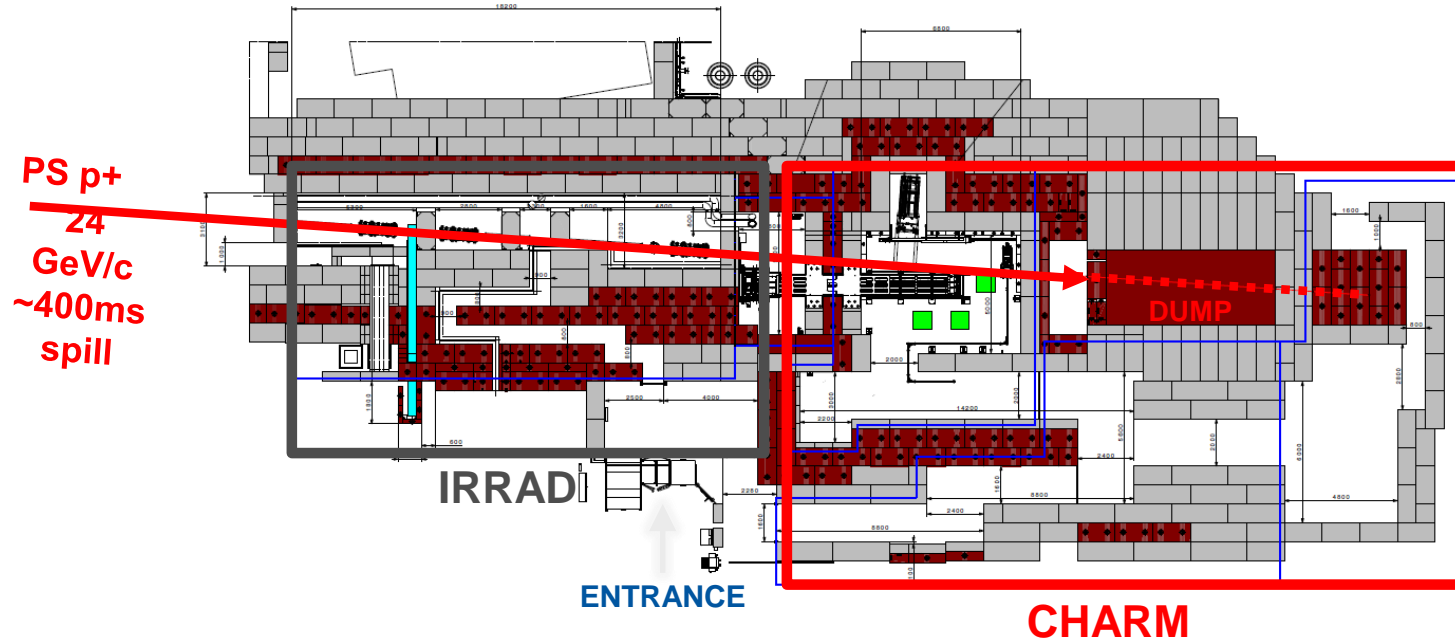


East Area
IRRAD/CHARM
 2015

East Area Irradiation Facility

Primary beam line from PS (T08): 24 GeV/c proton beam

CHARM irradiation area is placed downstream to **IRRAD** on the T8 line



Irradiation Room

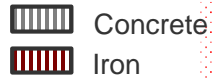
PRIMARY PROTONS IMPINGE THE TARGET: A SECONDARY RADIATION FIELD IS CREATED

3 KEY ELEMENTS:

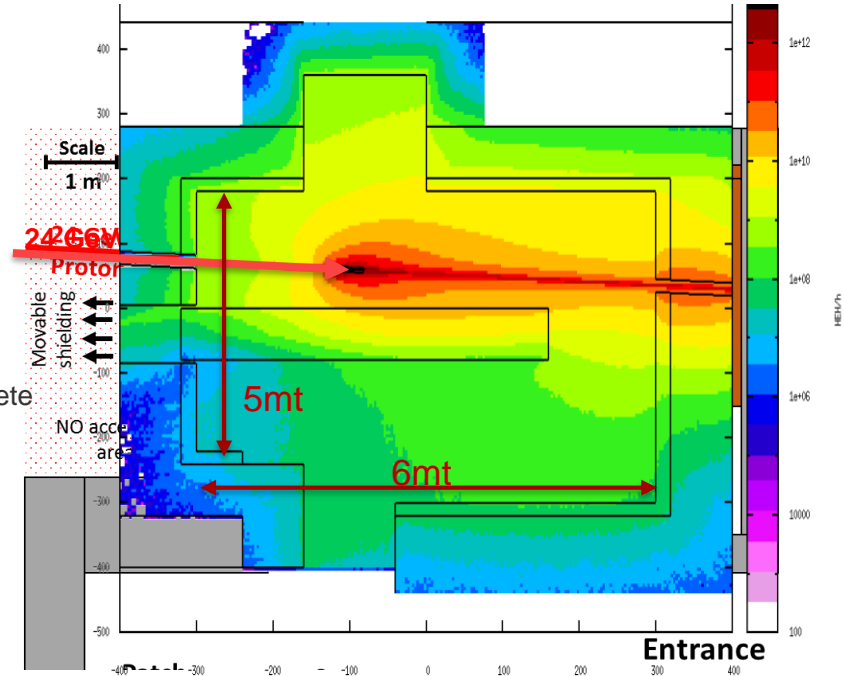
1. Target



2. Movable Shielding

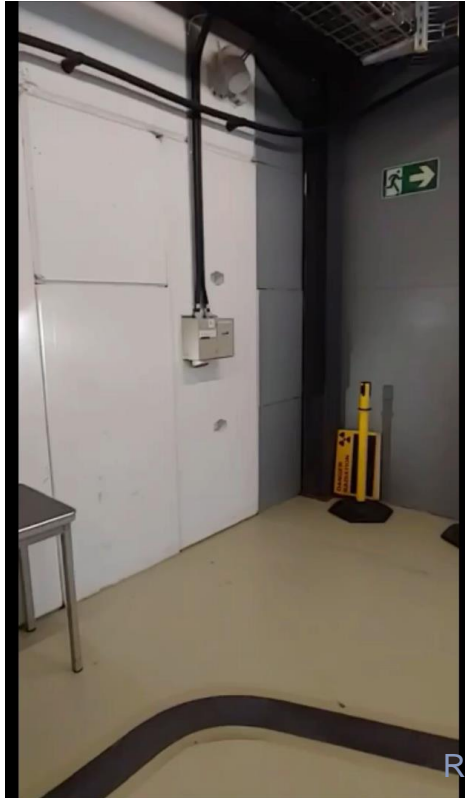


3. Positions



CHARM Virtual Tour

- Cern High Energy Accelerator Mixed-Field

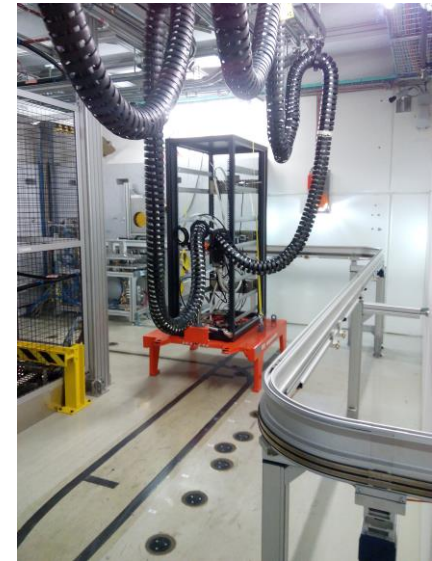
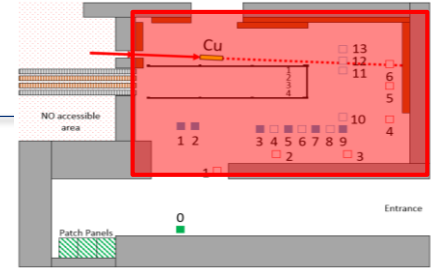


Planning and Coordination of CHARM facility

- Is a tasks that takes in consideration:
 - The user requests
 - The user cabling needs
 - The user system size
 - Understanding the user aim and objectives in terms of radiation testing
 - Knowledge of the radiation field and parameter of the facility
 - Coordination with IRRAD facility

CHARM Operation

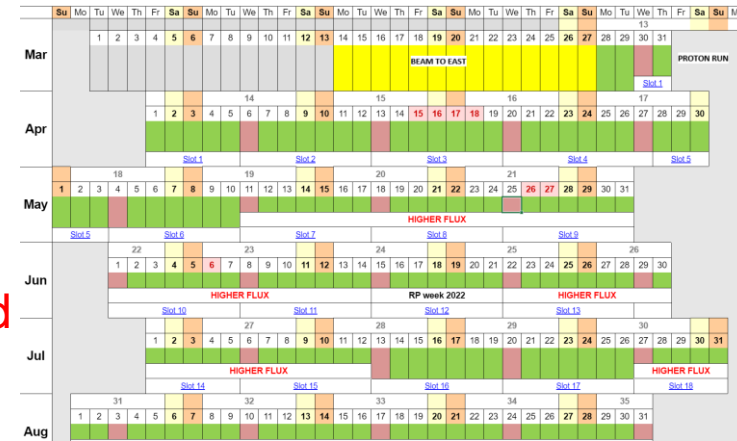
- The access is every Wednesday
- A run/slot lasts **one week**
- The rack can fit **several users**
- It is brought inside by a **robotic conveyer**
- It automatically leaves the rack in position
- It reduces the **time of exposure** of the working people in the activated area
- The users have to demonstrate that the test work one week before the access (dry run)
- The user has only one-shot (Wednesday) to make the installation of his test
- The chain and the rack are provided by us in advance



2022 Planning : RADNEXT TA

- **35 weeks** of operations
- 1 week of commissioning to face the very different radiation requests
- **33 Requests** already received
- **+3** from RADNEXT users
- 16 system level tests (9 users) **already completed** in 9 weeks
- RADNEXT users possible slots will be in August/September

2022 Calendar



TA03-31: CAEN CMS DRT	Mixed field	Ferdinando Giordano
TA04-71: Mixed Field Irradiation of NANOsky I Platform in CHARM Facility	Mixed field	David Selcan
TA04-73: Comparison of COTS FPGA in Middle Earth Orbit and Nuclear Laboratory Environment	Mixed field	Iztok Kramberger

Thanks for your attention!



Image Source: CERN