



Contribution ID: 705 Contribution code: MOPA011

Type: **Poster Presentation**

Detailed design studies of the high energy beam transport line of the Minerva Project at SCK CEN

Monday 8 May 2023 16:30 (2 hours)

MYRRHA will be a research infrastructure focussed on the construction of a first prototype of an accelerator driven sub-critical nuclear reactor (ADS). The driver accelerator will deliver a 600 MeV, 4 mA Proton beam to the reactor core. The first phase called MINERVA aims for the construction of a 100 MeV, 4 mA proton linear accelerator with a focus on reliability. Attached to this 100 MeV linear accelerator are a Proton Target Facility (PTF), which is essentially a high power Isotope Separation On-Line (ISOL) Facility, and a Full Power Facility (FPF) for fusion material research. This paper presents the status of the beam optic studies and overall layout of the Protons Target line towards the PTF, the Full Power line towards the FPF and the beam line towards an energy tuning beam dump.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: PERROT, Luc (Université Paris-Saclay, CNRS/IN2P3, IJCLab)

Co-authors: BOULY, Frédéric (Laboratoire de Physique Subatomique et de Cosmologie); BOUQUEREL, Elian (Institut Pluridisciplinaire Hubert Curien); CHANCÉ, Sophie (Université Paris-Saclay, CNRS/IN2P3, IJCLab); DE KEUKELEERE, Lennert (Belgian Nuclear Research Centre in Mol); DORDA, Ulrich (Belgian Nuclear Research Centre in Mol); FROIDEFOND, Emmanuel (Laboratoire de Physique Subatomique et de Cosmologie); TRAYKOV, Emil (Institut Pluridisciplinaire Hubert Curien); VAN DE WALLE, Jarno (Belgian Nuclear Research Centre in Mol)

Presenter: PERROT, Luc (Université Paris-Saclay, CNRS/IN2P3, IJCLab)

Session Classification: Monday Poster Session

Track Classification: MC1: Colliders and other Particle Physics Accelerators: MC1.A17: High Intensity Accelerators