

# Operational improvements and upgrades of the CLEAR user facility

*Thursday 29 August 2024 16:00 (2 hours)*

The CERN Linear Accelerator for Research (CLEAR) at CERN is a user facility providing a 200 MeV electron beam for accelerator R&D and irradiation studies, including medical applications. In this paper we will outline the most recent improvements in CLEAR operation and beam control and delivery, and describe the upgrades under way, giving an update of their current status. These upgrades include a new front-end for the laser system which will enable an highly flexible time structure, better stability and higher repetition rates, and the implementation of a second beam line which will provide additional testing capability and whose optics has been designed to match user requirements. Finally, we will discuss the proposed future experimental programme of the facility, particularly in view of the novel capabilities provided by the upgrades.

## Footnotes

## Funding Agency

**Author:** KORYSKO, Pierre (Oxford University)

**Co-authors:** MALYZHENKOV, Alexander (European Organization for Nuclear Research); GILARDI, Antonio (University of Napoli Federico II); Dr AKSOY, Avni (European Organization for Nuclear Research); ROBERTSON, C. (University of Oxford); GRANADOS, Eduardo (European Organization for Nuclear Research); NAJMUDIN, I. (University of Oxford); WROE, Laurence (European Organization for Nuclear Research); MARTINEZ-CALDERON, Miguel (European Organization for Nuclear Research); CORSINI, Roberto (European Organization for Nuclear Research); RIEKER, Vilde (European Organization for Nuclear Research); FARABOLINI, Wilfrid (European Organization for Nuclear Research)

**Presenter:** KORYSKO, Pierre (Oxford University)

**Session Classification:** Thursday Poster Session

**Track Classification:** MC2: Electron Accelerators and Applications: MC2.2 Electron linac projects