



ID contributo: 44

Tipo: **oral**

## First studies of crystal collimation for the FCC-ee

*lunedì 9 settembre 2024 09:35 (15 minuti)*

The Future Circular electron-positron Collider (FCC-ee) is being designed to reach energy and luminosity frontiers for lepton colliders. This requires managing very high-intensity lepton beams, with stored beam energies up to 17.5 MJ. Therefore, a beam collimation system is essential for safely disposing of unavoidable beam losses. Unique challenges for the collimation system design need to be addressed, and the exploitation of channelling of charged particles in a bent crystal-assisted collimation scheme is being explored as a possible solution. This paper presents the first studies to assess the feasibility of implementing such a collimation scheme in the FCC-ee.

**Autori principali:** Dr. ABRAMOV, Andrey (CERN); MIRARCHI, Daniele (CERN); BROGGI, Giacomo (Istituto Nazionale di Fisica Nucleare); BOSCOLO, Manuela (Istituto Nazionale di Fisica Nucleare); Dr. BRUCE, Roderik (CERN); REDAELLI, Stefano

**Relatore:** BROGGI, Giacomo (Istituto Nazionale di Fisica Nucleare)

**Classifica Sessioni:** FCC & Channeling