



Contribution ID: 1709 Contribution code: MOPL180

Type: **Poster Presentation**

Proton and electron RLA optics design

Monday, 8 May 2023 16:30 (2 hours)

We describe optics designs of the key components of proton and electron Recirculating Linear Accelerators (RLAs). They are presented in the context of a high-power hadron accelerator being considered at ORNL and a CEBAF electron energy doubling study, FFA@CEBAF, being developed at Jefferson Lab. Both concepts rely on the Fixed-Field Alternating gradient (FFA) arc optics designs where multiple beam passes are transported by a single beam line.

Funding Agency

Authored in part by UT-Battelle, LLC, under DE-AC05-00OR22725, Jefferson Science Associates, LLC under DE-AC05-06OR23177, and Brookhaven Science Associates, LLC under DE-SC0012704 with the US DOE.

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: MOROZOV, Vasilii (Oak Ridge National Laboratory)

Co-authors: BOGACZ, Alex (Thomas Jefferson National Accelerator Facility); COXE, Alexander (Jefferson Lab); SERGI, Andrei (Thomas Jefferson National Accelerator Facility); GAMAGE, Bamunuvita (Thomas Jefferson National Accelerator Facility); TRBOJEVIC, Dejan (Brookhaven National Laboratory); KHAN, Donish (Thomas Jefferson National Accelerator Facility); MEOT, Francois (Brookhaven National Laboratory); KRAFFT, Geoffrey (Thomas Jefferson National Accelerator Facility); HOFFSTAETTER, Georg (Cornell University (CLASSE)); BERG, J. (Brookhaven National Laboratory); BENESCH, Jay (Thomas Jefferson National Accelerator Facility); PRICE, Katherine (Thomas Jefferson National Accelerator Facility); DEITRICK, Kirsten (Thomas Jefferson National Accelerator Facility); BODENSTEIN, Ryan (Thomas Jefferson National Accelerator Facility); BROOKS, Stephen (Brookhaven National Laboratory); ROBLIN, Yves (Thomas Jefferson National Accelerator Facility)

Presenter: DEITRICK, Kirsten (Thomas Jefferson National Accelerator Facility)

Session Classification: Monday Poster Session

Track Classification: MC1: Colliders and other Particle Physics Accelerators: MC1.A12: FFA