Contribution ID: **31** Contribution code: **WEP037** Type: **Poster Presentation**

Final Design And First Use Of In-Situ Measuring Apparatus For Measurement Of Permanent Magnet Resiliency In CEBAF's Radiation Environment

Wednesday 13 August 2025 16:00 (2 hours)

In this work we outline the final design and initial measurement lessons for the holders and measuring apparatus of the permanent magnet resiliency experiment which is a part of the FFA@CEBAF proposed upgrade. The experiment will expose permanent magnets to the radiation environment of CEBAF. Due to safety regulations we need to measure the magnets in the tunnel without bringing them out, so we designed a mobile measuring system as well as a series of protocols to allow us to speedily measure these samples even under adverse conditions. We also designed our system to be capable of taking measurements even with component failures.

Please consider my poster for contributed oral presentation

Yes

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

This material is based upon work supported by the U.S. DOE, Office of Science, Office of Nuclear Physics contract DE-AC05-06OR23177. Some of the work in this paper was the result of LDRD at JLab.

I have read and accept the Privacy Policy Statement

Yes

Authors: GAMAGE, Bamunuvita (Thomas Jefferson National Accelerator Facility); NISSEN, Edith (Thomas Jefferson National Accelerator Facility); NETHTHIKUMARA, Isurumali (Thomas Jefferson National Accelerator Facility); GUBELI, Joe (Thomas Jefferson National Accelerator Facility); DEITRICK, Kirsten (Thomas Jefferson National Accelerator Facility); BODENSTEIN, Ryan (Thomas Jefferson National Accelerator Facility)

Presenter: NISSEN, Edith (Thomas Jefferson National Accelerator Facility)

Session Classification: WEP: Wednesday Poster Session

Track Classification: MC7 –Accelerator Technology and Sustainability