

Contribution ID: 1609 Contribution code: MOPA009 Type: Poster Presentation

The Scorpius Linear Induction Accelerator

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

A new linear induction accelerator named Scorpius is being designed for multi-pulse flash radiography. The solid-state pulsed power system offers a technological breakthrough by delivering multiple independent pulses to accommodate a wide variety of pulse formats. The design provides pulse modulation capabilities which will mitigate reflected waves and reduce voltage variations across a temporal window twice as large as existing multi-pulse radiography accelerators. Successful coupling of the solid-state pulsed power with prototype induction cells has demonstrated these capabilities, and the project will assemble the Scorpius injector with a number of accelerating cells for integrated testing.

Funding Agency

This work was supported by Mission Support and Test Services, LLC, under Contract No. DE-NA0003624 with the U.S. Department of Energy. DOE/NV/03624-1532

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary authors: DUNHAM, Bruce (Mission Support and Test Services); SCOTT, Evan (Nevada National

Security Site); BURRIS-MOG, Trevor (Nevada National Security Site)

Presenter: DUNHAM, Bruce (Mission Support and Test Services)

Session Classification: Monday Poster Session

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

sity Accelerators