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Field mapping and alignment procedure for new photoinjector solenoid magnets at the Argonne Wakefield Accelerator

Monday 11 August 2025 16:00 (2 hours)

The Argonne Wakefield Accelerator test facility will be upgrading the RF photoinjector with a new symmetrized RF photogun (named G4) in order to increase beam brightness and stability. In conjunction with G4, three new solenoid coils have been commissioned to replace the previous solenoids, with new considerations to preserve field symmetry and combat higher order modes within the coil that could reduce beam quality. We report here on the recent field mapping efforts on the solenoid, as well as discuss how these measurements can be used to aid alignment of the coils during the installation of the new G4 RF photogun.

Please consider my poster for contributed oral presentation

No

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

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Author: ODY, Alexander (Argonne National Laboratory)

Co-authors: GRABENHOFER, Alexander (Argonne National Laboratory); WHITEFORD, Charles (Argonne National Laboratory); DORAN, D. Scott (Argonne National Laboratory); FRAME, Emily (Northern Illinois University); WISNIEWSKI, Eric (Argonne National Laboratory; Illinois Institute of Technology); POWER, John (Argonne National Laboratory); HLAVENKA, Josh (Argonne National Laboratory); PIOT, Philippe (Argonne National Laboratory); LIU, Wanming (Argonne National Laboratory)

Presenter: ODY, Alexander (Argonne National Laboratory)

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