



Contribution ID: 61 Contribution code: TUP001

Type: Poster Presentation

2D Phase Space Tomography with SciBmad Tracking

Tuesday 12 August 2025 16:00 (2 hours)

This paper presents the application of SciBmad tracking, a component of the SciBmad software ecosystem for differentiable accelerator physics simulations in Julia. The study demonstrates the use of phase space tomography to reconstruct the phase space distribution of a particle beam given the two-dimensional projections of its phase space distribution. Using the SciBmad tracking interface, the phase space distribution of the beam before transport through a set of beam optics can be constructed from the beam's projections after transport. This result showcases the utility of SciBmad and highlights its potential for study and optimizing injection, transport, and acceleration of beams.

Please consider my poster for contributed oral presentation

Yes

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

Yes

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Authors: ABELL, Dan (RadiaSoft (United States)); SAGAN, David (Cornell University); HOFFSTAETTER, Georg (Cornell University); SIGNORELLI, Matthew (Cornell University); YANG, Xinyi (Cornell University (CLASSE))

Session Classification: TUP: Tuesday Poster Session

Track Classification: MC5 –Beam Dynamics and EM Fields