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Type: Poster Presentation

## 2D Phase Space Tomography with SciBmad Tracking

Sunday 10 August 2025 15:00 (3 hours)

This paper presents the application of BeamTracking.jl, a key package in the Julia based SciBmad software ecosystem for differentiable accelerator physics simulations. This study demonstrates the use of phase space tomography to reconstruct the 2D phase space distribution of a particle beam. Using the SciBmad tracking package BeamTracking.jl, the phase space distribution of the beam can be constructed from the beam's projections after being transported through a quadrupole and a drift. This result showcases the utility of SciBmad and highlights its potential for studying and optimizing injection, transport, and beam acceleration.

## 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

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**Track Classification:** MC5 –Beam Dynamics and EM Fields