Contribution ID: **108** Contribution code: **TUP088** Type: **Poster Presentation**

Simulations of passive higher-harmonic RF cavities for bunch lengthening in ELEGANT and SPACE

Tuesday 12 August 2025 16:00 (2 hours)

In this study, we present a comparative analysis of passive higher-harmonic cavity (HHC) simulations with beam loading compensation using the particle tracking codes ELEGANT and SPACE. By cross-verifying results from both codes, we assess their accuracy in modeling beam dynamics under passive HHC operation for different filling patterns. Our findings demonstrate consistent outcomes between ELEGANT and SPACE, validating their effectiveness in simulating passive HHC systems with beam loading compensation. This work provides valuable insights for optimizing beam stability and performance in storage rings with HHCs.

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

I have read and accept the Privacy Policy Statement

Yes

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Session Classification: TUP: Tuesday Poster Session

Track Classification: MC5 –Beam Dynamics and EM Fields