Contribution ID: **332** Contribution code: **TUP020** Type: **Poster Presentation**

Capture efficiency optimization in a compact distributed drive linac

Tuesday 12 August 2025 16:00 (2 hours)

The continuing development of radio-frequency (RF) amplifier technology has paved the way for RF electron accelerators in which each cavity is independently powered, allowing the amplitude and phases to be individually tunable. In this work we study the potential benefits provided by this flexibility in maximizing the capture efficiency in a ≈2 MeV compact accelerator suitable for a wide variety of industrial and medical applications, as well as traditional roles in research and education. Simulations demonstrate capture efficiencies > 90%, far surpassing typical capture efficiencies which are on the 50% scale.

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

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Session Classification: TUP: Tuesday Poster Session

Track Classification: MC5 –Beam Dynamics and EM Fields