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## Simulating dielectric wakefield acceleration of positrons from a solid target converter

*Wednesday 13 August 2025 16:00 (2 hours)*

Positrons and electrons can be generated by impinging a relativistic electron beam onto a solid converter, sometimes referred to as a non-neutral fireball beam. Depending on the scenario, a substantial fraction of the incoming driver bunch may still have sufficient quality to drive high gradient ( $\sim$ GV/m) accelerating wakefields in a dielectric structure. Here we consider the design of a dielectric loaded waveguide, positron converter, and electron driver bunch structure to realize capture and GV/m dielectric wakefield acceleration of positrons at SLAC FACET-II.

### 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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