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## Design of the L-band photocathode RF gun

*Wednesday, 22 May 2024 16:00 (2 hours)*

In this paper, we presented the design of an L-band photocathode RF gun for the particle-driven wakefield accelerator proof-of-principle project at IHEP. The gun is a critical component, tasked with generating both the driving beam and potentially the witness beam. It is specifically engineered to deliver a beam with a bunch charge of 5 nC. Key aspects of the design, including RF optimization and the focusing solenoid arrangement, are discussed in detail.

### Footnotes

### Funding Agency

### Paper preparation format

### Region represented

Asia

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