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# Fully optically controlled 90 degree Trojan Horse injection

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Fully optically controlled underdense photocathode plasma accelerators (“Trojan Horse”) has the potential to produce electron bunches with outstanding beam parameters. High charge, ultra low emittance electron beams are generated in a highly tunable nature due to the purely optical injection process. This injection method has been demonstrated at the SLAC national Accelerator Laboratory during in the E210 experiment. 3D PIC simulations and experimental results of Trojan Horse injection in 90 degree geometry from this campaign are presented.

## Summary

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