

Abstract Submitted  
for the DPP13 Meeting of  
The American Physical Society

**Numerical studies of a technique to create a convergent fast electron source from laser-solid interactions** ROBBIE SCOTT, Science and Technology Facilities Council — Relativistically-intense laser-solid experiments and simulations have to-date indicated that the fast electron beam generated by the laser-solid interaction is highly divergent. This work presents a new technique which offers the potential to greatly reduce this divergence, potentially enabling the creation of a *convergent* fast electron source. The results of particle-in-cell simulations using the EPOCH code are presented and the basic scheme outlined. If this technique can be shown to work in the laboratory, it may have significant implications for numerous applications related to the generation of fast electrons, including ion acceleration and the fast ignition inertial confinement fusion scheme.

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Date submitted: 13 Sep 2013

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