

Abstract Submitted  
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**Modeling double pulsing of ion beams for HEDP target heating experiments**<sup>1</sup> SETH VEITZER, Tech-X Corporation, JOHN BARNARD, Lawrence Livermore National Laboratory, PETER STOLTZ, Tech-X Corporation, ENRIQUE HENESTROZA, Lawrence Berkeley National Laboratory — Recent research on direct drive targets using heavy ion beams suggests optimal coupling will occur when the energy of the ions increases over the course of the pulse. In order to experimentally explore issues involving the interaction of the beam with the outflowing blowoff from the target, double pulse experiments have been proposed whereby a first pulse heats a planar target producing an outflow of material, and a second pulse ( $\sim 10$  ns later) of higher ion energy (and hence larger projected range) interacts with this outflow before reaching and further heating the target. We report here results for simulations of double pulsing experiments using HYDRA for beam and target parameters relevant to the proposed Neutralized Drift Compression Experiment (NDCX) II at LBNL.

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