Abstract Submitted
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**LSP simulations of proton-driven fast ignition**[1] CLAUDIO BELLEI, MARK FOORD, DAVID STROZZI, TERESA BARTAL, MICHAEL KEY, HARRY MCLEAN, PRAVESH PATEL, RICHARD STEPHENS, FARHAT BEG — Shortly after the first measurements of energetic proton beams produced in high-intensity laser-solid interactions, the possibility of using a laser-accelerated proton beam as a driver for fast ignition was recognized [1]. This work aims at presenting some preliminary LSP results on proton-driven fast ignition in a more realistic scenario than previously considered [2]. We assume an imploded configuration for the DT plasma, with a cone inserted in the fuel assembly. A hemispherical target positioned inside the conical structure is the source for the igniting proton beam. The energy delivered by the proton beam to the DT fuel will be compared to Atzeni's ignition conditions [3] and to current results on electron-driven fast ignition.

[1] M. Roth *et al.*, Phys. Rev. Lett. **86**, 436 (2000)
[2] M. Temporal, J. J. Honrubia, and S. Atzeni, Phys. Plasmas **9**, 3098 (2002)
[3] S. Atzeni, Phys. Plasmas **6**, 3316 (1999)

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