

Abstract Submitted  
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**MHD simulation of a magnetized target in an imploding conical cavity** CHENG LI, Peking Univ — Conical imploding magnetic target fusion (MTF) is a new concept, in which the compression comes from both fast mechanic implosion and synchronized theta-pinching or Z-pinching. The compressed magnetized target has a moving end, an increasing external current, and an accumulating high density. Magneto-hydrodynamics (MHD) simulation could help revealing the details of the evolving plasma and finding the parameters (imploding speed, fuel amount, theta-pinch or Z-pinch current profile, etc.) required to reach Lawson Criterion. Preliminary 2D MHD simulation results of a conical imploding theta-pinch are presented.

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