

Abstract Submitted
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Initial simulation of MHD instabilities in a high speed plasma accelerator¹ JIN-SOO KIM, IOAN NICK BOGATU, FAR-TECH, Inc., TOM HUGHES, DALE WELCH, ATK, FRANCIS THIO, DOE — High density, high Mach number plasma jets are under development for a variety of critical fusion applications. These applications include fueling, rotation driving, and disruption mitigation in magnetic fusion devices. They also include a range of innovative approaches to high energy density plasmas. FAR-TECH, Inc. has begun 3D MHD simulations using the LSP code [1] to examine such high speed plasma jets. An initial study to benchmark the code is currently underway. The blow-by instability will be simulated in a coaxial plasma accelerator using the 3D LSP code and compared with the 2D MACH2 code results.

[1] LSP-Manual-MRC-ABQ-R-1942.pdf

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