

# 3D MHD Simulation Support for PJMIF

Topic Area:

Partner	Company
Los Alamos National Laboratory	HyperJet Fusion Corporation
Dr. Samuel Langendorf	Dr. F. Douglas Witherspoon

## Project Summary:

MHD simulations were performed to explore collisions of two transient magnetized plasma jets to identify MHD dynamics and onset of potential 3-D instabilities.

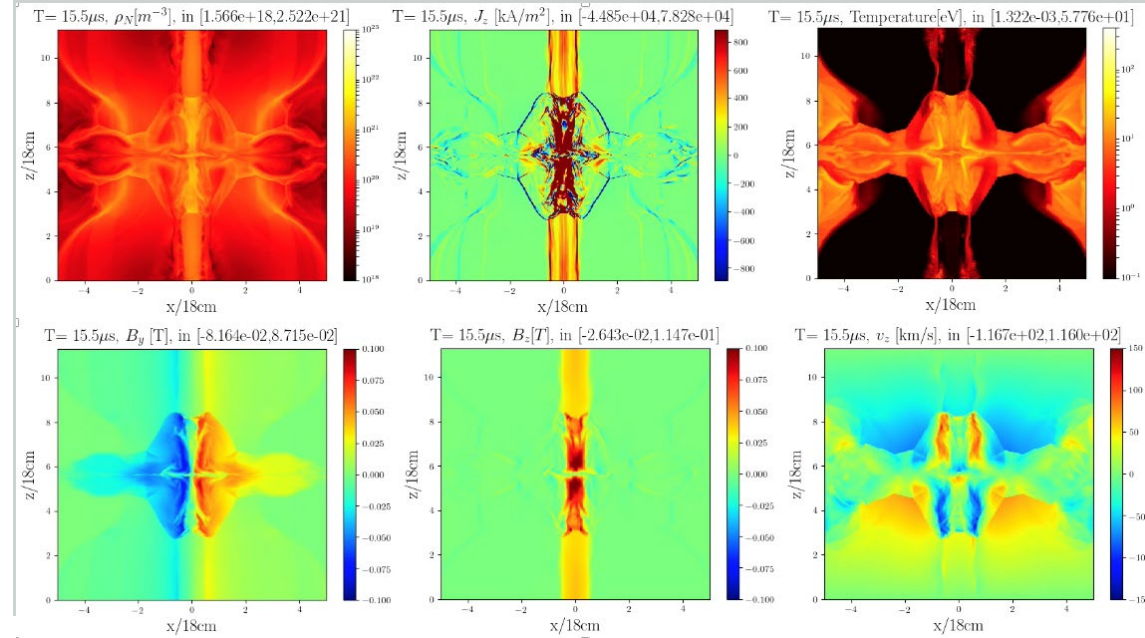
## Fusion Impact:

Explores issues associated with forming a magnetized plasma target for the PJMIF approach to fusion by merging multiple high speed magnetized plasma jets.

## Business/Market Impact:

No insurmountable technical barriers found

*M=1 kink instability (giving desired tangled B field) is only excited at high current, low field range of experimental parameters.*



**Period of Performance:**

10/01/19 - 09-30-20

**Federal Share:**

\$200k

**Cost Share:**

\$50k