



3D modeling of the Staged Z-pinch with the FLASH code

| Partner | Company |
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| Dr. Petros Tzeferacos | Dr. Emil Ruskov |

Project Summary:

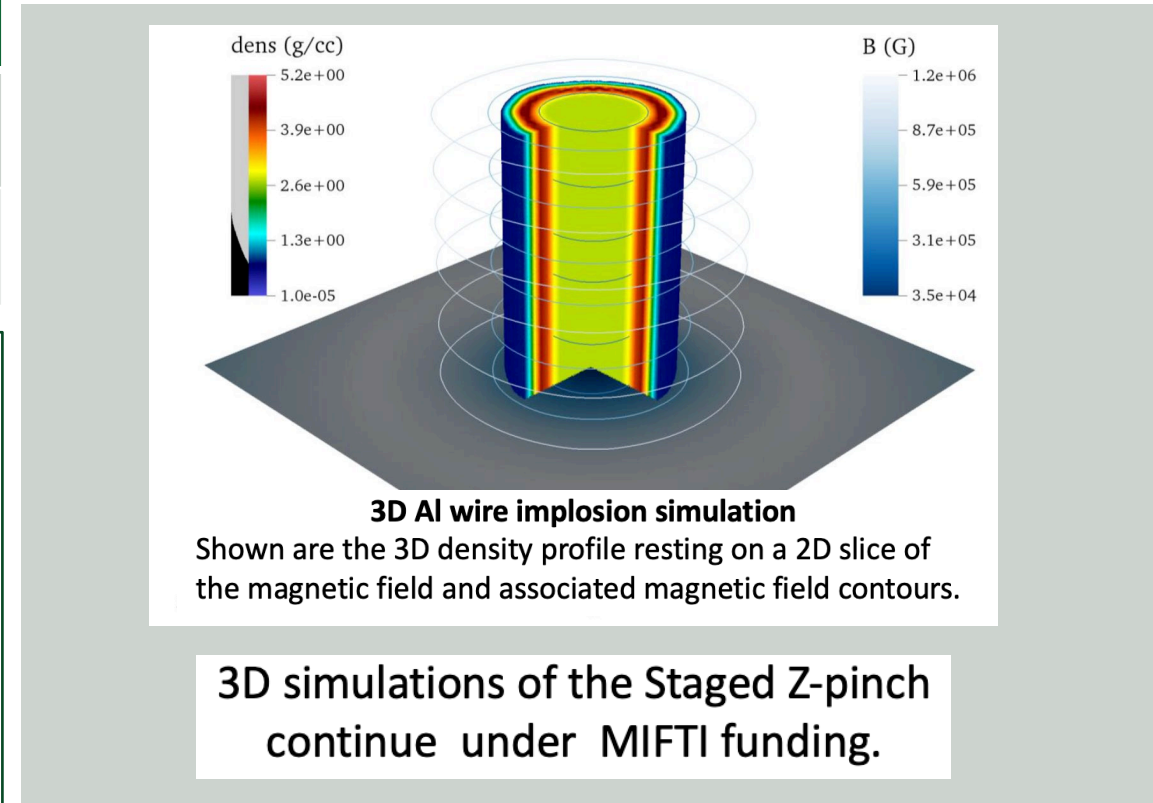
Assess the SZP shell and fuel stability to 3D MHD instabilities and understand how they affect the implosion dynamics and plasma conditions at stagnation.

Fusion Impact:

The kink and helical instabilities are often observed in Z-pinch experiments. These 3D effects can limit the fusion plasma performance.

Business/Market Impact:

Increased confidence in the Staged Z-pinch concept increases the private investment prospects.



| Period of Performance: | Federal Share: | Cost Share: |
|--------------------------|----------------|-------------|
| 09/01/2022 08/31/2023 | \$179,395 | \$45,330 |