


CASL
Core Partner

Sandia National Laboratories

Sandia has a long history of providing world-class capabilities in nuclear energy safety and licensing and in advanced computational science and high-performance computing.



The Annular Core Research
Reactor (ACRR) at Sandia

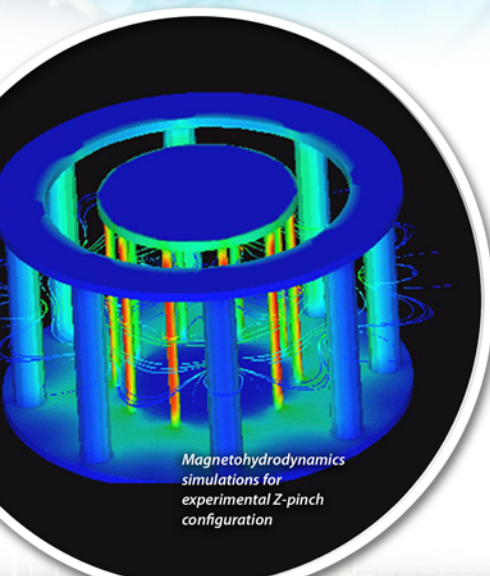
Key contributions

- Advanced algorithms and architectures
- Scalable, coupled, and integrated multiphysics codes
- Verification and validation (V&V) and uncertainty quantification (UQ)
- Safety and risk assessment


Key outcomes

Virtual Environment for Reactor Applications (VERA)

- Advanced computational fluid dynamics (CFD) capabilities
- Advanced structural mechanics capabilities for grid-to-rod fretting
- LIME multi-physics coupling
- Intrinsic V&V/UQ for reduced uncertainties and for guiding CASL R&D investments



Magnetohydrodynamics
simulations for
experimental Z-pinch
configuration



Checking the status of
systems that make up
Sandia's Red Sky
supercomputer

