Argonne NATIONAL LABORATORY

E. Merzari

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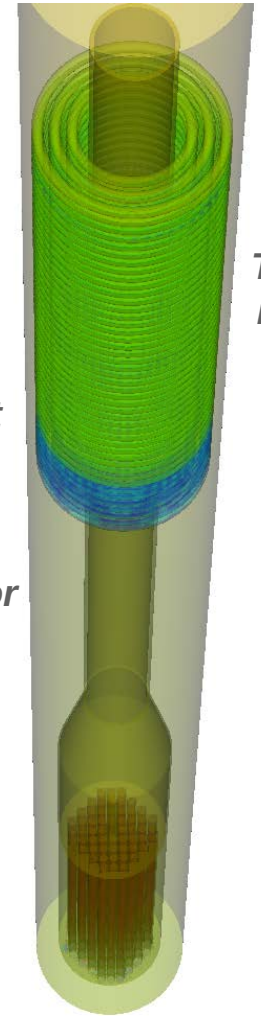
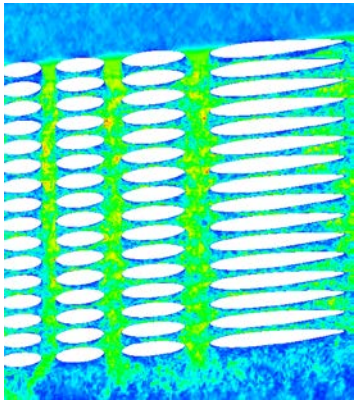
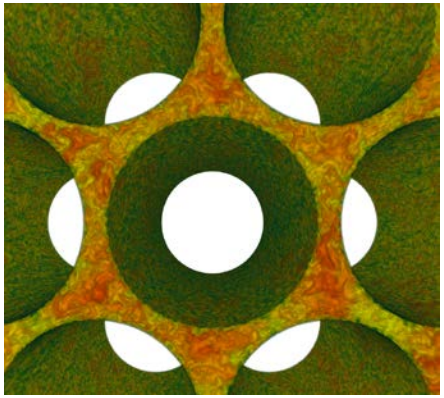


Spectral Element Simulation of turbulent flow in a integral experiment designed for MASLWR (SMR)

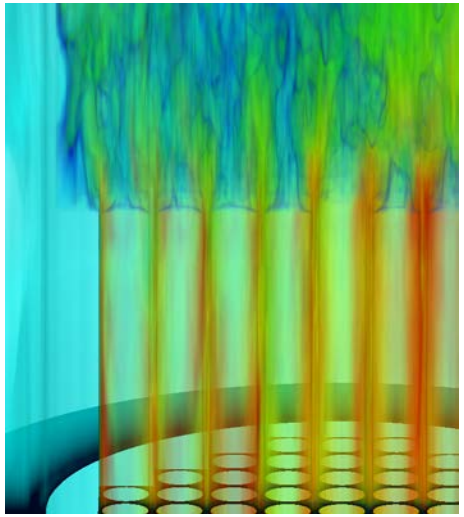
Turbulence in a Helical Steam generator





Turbulence in a rod bundles, multiscale

Core



- At the **Nexus** between Engineering Practice and Supercomputing-level "hero" turbulence calculations
- **Focus**: Predictive numerical simulation of turbulence in complex systems aimed at improved our physical understanding
- **Impact**: Improvements in design, and safety of flow systems. Considerable cost savings (less experiments, less failures, higher efficiency).

U.S. DEPARTMENT OF ENERGY