

Idea for FY2017 or FY2018 Research Milestone

Modeling of advanced divertors for NSTX-U

- Goal: provide predictive guidance for planned NSTX-U advanced divertor experiments
- Equilibria modeling with ISOLVER
 - Impact of partial divertor coil set, ohmic flux swing, cryo-geometry, etc
- Modeling of snowflake divertor configurations with 3D fields
 - G. Canal et.al., M3D-C1 simulations of the plasma response to non-axisymmetric magnetic perturbations in the NSTX-U snowflake divertor, Submitted to NUCLEAR FUSION (2016)
 - H. Frerichs et.al., Exploration of magnetic perturbation effects on advanced divertor configurations in NSTX-U, PHYS. PLASMAS (2016)
- Modeling of transport, radiation, and cryopump particle removal in the snowflake divertor with 2D multi-fluid codes
 - UEDGE, O. Izacard, on-going work (e.g., APS 2016)
 - SOLPS?
- Anything else?