

Summary of Topics

- [81] A. Leonard; Core constraints on divertor desing
- [15] S. Mordijck; Pedestal density transport
- [47] A. Jaervinen; Core-edge integration of high performance plasmas
- [43] S. Henderson; Nitrogen concentration required for divertor detachment
- [66] C.S. Chang, [16] X. Xu; Simulation and prediction of heat flux width
- [64] Poster, F Hitzler; Seeding optimization with SOLPS

Primary constraints

- Heat flux width
- Midplane density
- SOL impurity density
- X-point sensitivity
- Geometry
- Others?

Heat flux width

- **Turbulence broadening**

- How do we validate turbulence model predictions?
- What are implications of wider heat flux channel? Scenarios?

- **SOL MHD limit**

- How does broadening due to MHD limits affect pedestal and confinement?
- Under what conditions is this important?
- Does this limit upstream $q_{||}$ and divertor density that can be achieved during detachment in a DTT?

Pedestal density transport

- What are the critical resources needed to address this issue?
- Call for neutral diagnostics and interpretive modeling to determine sources
- What is the status and prospects for pedestal transport simulation?
- How can our community push this forward?

Impurity density

- Pedestal density transport model is needed
- Need pedestal impurity pinch simulations for low Z seeded impurities
- Impurity compression (SOL to Div.) model validation is needed

X-point/pedestal sensitivity to divertor detachment

- Need more characterization and modeling of how detachment migrates and engulfs X-point
- How can we engage pedestal researchers to get involved?

Other issues to note?