Measurements of Islands in Low-Rotation L-mode Used to Validate Rotational Screening Models

Linear two-fluid modeling doesn't capture experimental results

- Experimental results are bimodal: either island penetrates (at low rotation) or not (at high rotation)
- Single-fluid modeling zero rotation resonance correlated with data

Nonlinear modeling underway

 Saturated island sizes in better agreement with experiment

Extended-MHD Model validation needed for predictive capability of RMP ELM control

Resonant Amplification







