

NSTX/DIII-D JOINT EXPERIMENT ON ERROR FIELD AMPLIFICATION

Goal: Measure the properties of the stable RWM response in similar plasmas in DIII-D and NSTX (and JET?).

– Compare with analytic and numerical models (e.g., MARS).

Motivation: A resonance at the no-wall limit in rotationally stabilized plasma is predicted by some theories, but not observed in DIII-D.

Approach: Vary beta from $\beta < \beta(\text{no-wall})$ to $\beta \approx \beta(\text{ideal-wall})$.

Use new control coils to apply square pulses of n=1 field.

Measure amplitude, phase, & damping rate of plasma response.

Measurements (x) Model calculations (+)

