

Suppression of GAE with off-axis NBI

- New NSTX-U beam sources reliably suppress GAE activity
 - GAE cause fast ion transport, correlated with electron thermal transport
- Clear correlation of ctr-propagating GAE amplitude reduction/ growth with turn on/off time of outboard sources,
 - more than 60 examples
 - no (clear) exceptions have been found.
- Observations are consistent with cyclotron-resonant drive.
- Run-time to study beam voltage scaling, toroidal field scaling.
- Possibly HYM simulations of off-axis sources.
- (Better) or validated analytic theory for stability, resonance?
 - Qualitative $k_{\perp\rho_{\perp}}$ model seems to work pretty well to predict stability.