Progress on NSTX towards a stable steady state at low aspect ratio

D. Gates NSTX Physics Meeting August 14th, 2006

Outline

• Shaping

- Improvements to shape control
 - PF1A mod (hardware, basis)
 - rtEFIT (examples, utility)
 - Achievement of record plasma elongation/shape factor
- Effect of shaping on performance
 - Statistical data
 - MHD stability calculations
- Non-inductive current drive calculations
 - MSE/CHERS/MPTS profile data/analysis
 - Reconstruction technique
 - Bootstrap current fraction
 - NBI driven current
 - RF current drive (?)
- Reduction of flux consumption during ramp
 - Early H-mode
 - Early shaping
- Extrapolation/implications for future devices -> NHTX ?
- Summary