

Momentum transport studies using n=3 braking

I) Development of MHD-quiescent target plasma, similar to shots from Strait et al on NTM stability. Ideally can tweak these to get conditions comparable to previous XP 723 (e.g. #123190). If these shots do not run adequately without Li, then attempt to improve previous shots (try lower beta). Development work may be completed in XP “Impact of rotation on energy and impurity confinement time”.

5 shots

II) Density scan (L_n scan) to distinguish turbulent pinch theories of Hahm vs. Peeters et al.

3 point scan (...)

6 shots

III) Rotation scan (dependence of χ_ϕ and v_{pinch} on rotation)

2 point scan (NB sources A+B vs. A+C)

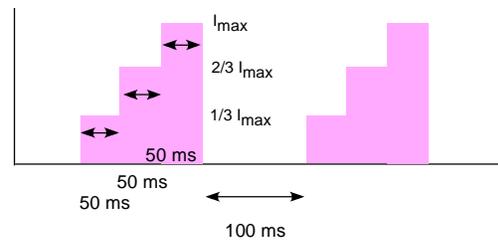
1 shot

IV) Pick up step up/down shots that were not obtained last time

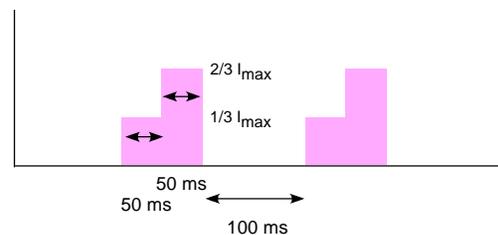
Contributes to rotation scan. Could also use longer initial steps to make more significant changes to plasma rotation, but would need NTV torque calculations from Sabbagh et al.

A) Step Up

1a, 3 steps

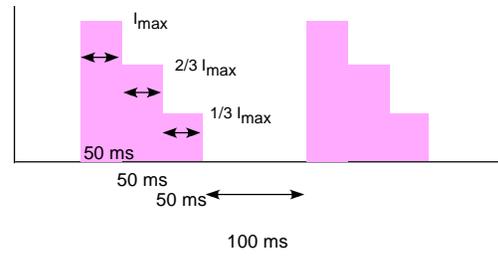


1b, 2 steps

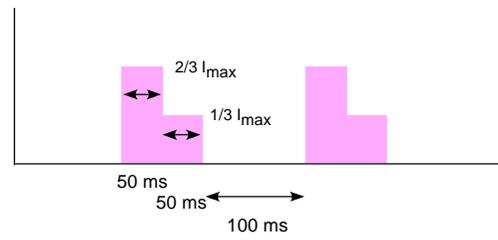


4 Shots

B) Step Down
1a, 3 steps



1b, 2 steps



4 Shots

Total 20 shots