

# MHD XP Prioritization – MHD Mtg 12/19/2002

## ❑ MHD XP Presentations

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|--|--------------------|-------------------|
| ❑ SOL Current during ELMS (Takahashi) –  | 0 days (piggyback) |                   |
| ❑ Stability limits at increased elongation and reduced li (Menard)             |                    |                   |
| • Plasma control capability might be an issue                                  |                    |                   |
| • Useful to scan stability space; keep $q_{min} > 2$ at $B_t = 0.44T$          | (1-1.5 days)       |                   |
| ❑ Resistive wall mode physics experiments (Sabbagh)                            |                    |                   |
| • RWM stabilization physics at low A XP  | (1 days)           |                   |
| • NSTX/DIII-D RWM similarity experiment XP (? DIII-D commitment ?)             | (1 days)           |                   |
| • RWM rotation damping physics XP (W. Zhu thesis work)                         | (1 days)           |                   |
| ❑ Ohmic locked mode studies with short duration NBI (Menard)                   |                    |                   |
| • Error field resonance / EFA near no-wall limit                               | (1 days)           |                   |
| ❑ Beta limit dependence on triangularity (Gates)                               |                    |                   |
| • Wants to complete database at $F_p \sim 2.4$                                 | (1 day)            |                   |
| • How does $F_p$ vary with delta? Dave claims not.                             |                    |                   |
| ❑ CAE (Fredrickson)  | (1 day)            | <b>7.5 days</b> ↑ |
| <hr style="border-top: 1px dashed black;"/>                                    |                    |                   |
| ❑ ELM physics in NSTX (Bush)   |                    |                   |
| • ELM physics: identification (i.e n number, type, triggers, bootstrap)        | (1 days)           |                   |
| • Overlap with T&T XP?   |                    |                   |
| ❑ CAE / GAE – possible similarity XP with DIII-D (Heidbrink)                   |                    |                   |
| • Dedicated run time expected to be needed – must run AFTER DIII-D XP          | (1 day)            | <b>9.5 days</b> ↑ |
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| ❑ Fishbones, TAE(Fredrickson)  |                    |                   |
| • High frequency ~ possibly 15 MHz modes (ICE, perhaps?)                       | (1 day)            |                   |
| ❑ NTM (Fredrickson, Gates, M. Bell)  |                    |                   |
| • NTM: high beta* $\tau$ shots could be good target plasmas                    | (1 day)            |                   |
| ❑ Resistive wall mode physics experiments (Sabbagh)                            |                    |                   |
| • (Resilience of low A plasmas to kink/ballooning modes XP: highly desire MSE) |                    |                   |