Energetic Particle XP ideas for NSTX 2009

Avalanches

- explore onset condition: occur in ITER?
- Pitch angle range of lost ions can be wide or limited: does mode number spectrum matter? Does orbit space stochastize in some cases to give wide pitch angle range? (will want to measure mode profiles)

BAAEs:

 Obtain mode profile & confined fast ion measurements in bursting loss events

• Ripple:

— Use single RWM coil to simulate TBM ripple in ITER: significant additional fast ion loss created?

Temporary upgrade to sFLIP acquisition rate for 2009 campaign

- Fast camera ordered for JET scintillator probe will be available for use on sFLIP for 2009 NSTX campaign, with 30-50k frames/s imaging rate
- Can any experiments benefit from this enhanced rate? (previously 1k frames/s)