

JRT-16 Discussion

JRTs are US DoE Three-Facility Milestones

- JRT = Joint Research Target
- Topics chosen so that each of DIII-D, NSTX, C-MOD can contribute.
 - But hopefully providing complementary data sets.
 - Theory contributions not explicitly required for most 3-facility JRTs...but it is for sure encouraged!
- Previous topics:
 - SoL width scaling
 - Pedestal width/height scaling
 - Momentum transport
 - Particle retention

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Conduct research to detect and minimize the consequences of disruptions in present and future tokamaks, including ITER. Coordinated research will deploy a disruption prediction/warning algorithm on existing tokamaks, assess approaches to avoid disruptions, and quantify plasma and radiation asymmetries resulting from disruption mitigation measures, including both pre-existing and resulting MHD activity, as well as the localized nature of the disruption mitigation system. The research will employ new disruption mitigation systems, control algorithms and hardware to help avoid disruptions, and measurements to detect disruption precursors and quantify the effects of disruptions.

Now, the talks!

Some common elements

- NSTX/DIII-D/C-MOD
 - Source models for high higher pressure impurities propagate into the plasma.
 - Either MGI or SPI
 - Non-axisymmetry in MGI:
 - effect of LMs, poloidal and toroidal injection localization.
 - consequences for P_{rad} peaking
- DIII-D/NSTX-U
 - Realtime detection of stability limits..EFs, (N)TM, RWMs.
 - Detection algorithms.

Discussion Notes