

Advanced Control Research Goals for 2015/6 - E. Kolemen

1. **Advanced Divertor Control: Snowflake/ X-divert etc.**

- integrated with shape control development)

2. **Setting up the rotation control hardware and software connections (working with Mario):**

- At least have the baseline capability so that we can start gathering data

3. **Real-time MSE EFIT (Who is taking the lead on this? Stefan?)**

4. **Start the real-time Thomson integration:**

- This will be a multi year effort. Jon Menard is interested in capability. I set this up at DIII-D. We can do it here as well.
- Need to setup the connections and libraries right so that we have a base.

5. **Adaptive *ELM control* and *EFC control***

- Developed and tested the real-time vacuum kink/pitch resonance Chirikov calculations at DIII-D (surfmn). Find the Amp and phase of 3D coils. Pretty robust. Once we have the EFC sources calculated.
- Move it over to NSTX-U.

6. **Connect the bolometers to PCS → Radiation control**

- Setup a PCS user interface where this stands. This will enable radiation cnt