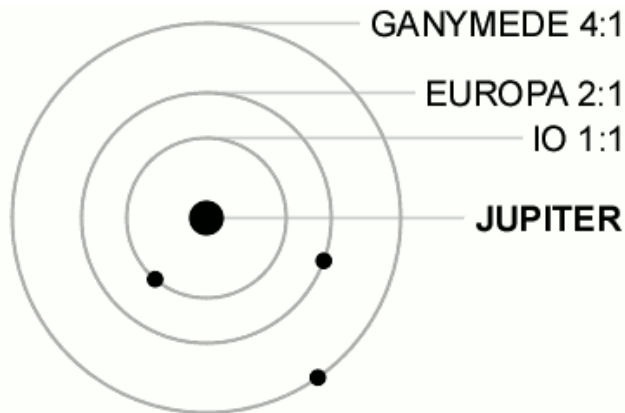


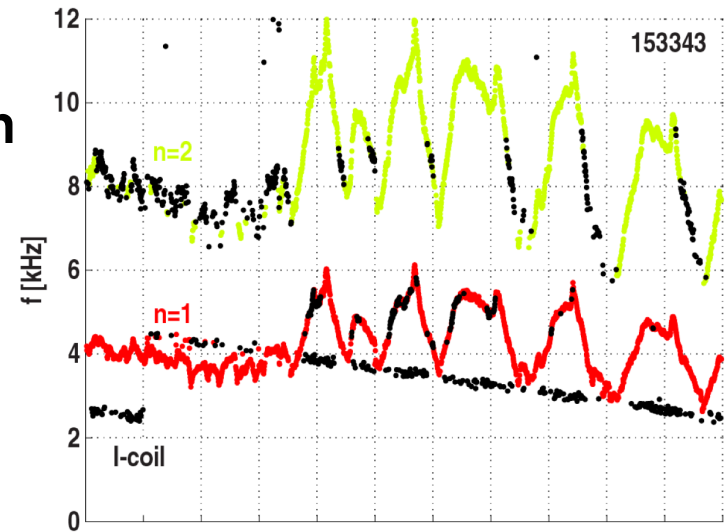
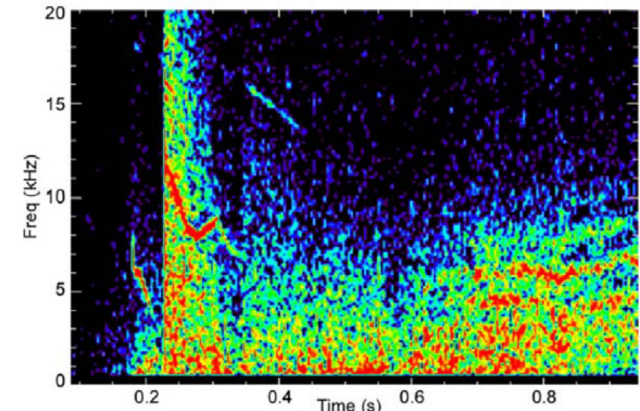
# Density Control with EHO

## EHO Coil Assessment: EHO 3D coil interaction

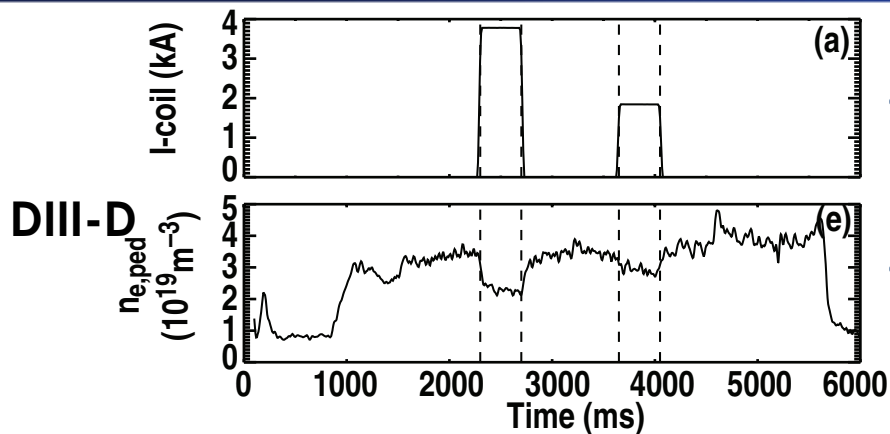
- EHO a good density control tool for
- Asses EHO Coil for NSTX-U
- Reduce the EHO frequency as low as possible (scenario development, magnetic braking).
- Can we get to 1kHz? There are some 1.5 KHz modes. Can the SPAs at all useful close to 1 kA?
- D3D, Lanctot initial I-coil EHO interaction
- Can we have 2:1 or 4:1 resonance?



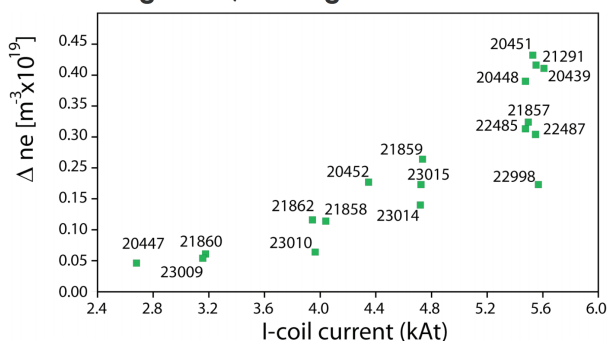
(a) Edge USXR with 5um Be filters



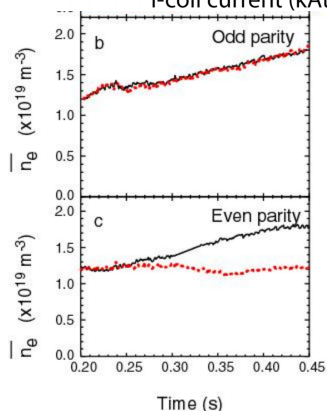
# Density Control with 3D Coils



Trend in density pump-out with I-coil current magnitude, but large scatter in the data



**MAST**



- **MAST, DIII-D density pump-out result**
- **Previously, not strong pump-out observed at NSTX.**
- **Revisit to see if we achieve strong density pump in new scenarios at NSTX-U.**
  - **q95 dependence resonance window (low?)**
- **With possible addition of ELM Suppression/Reduction**
- **We can have a strong density control tool**