

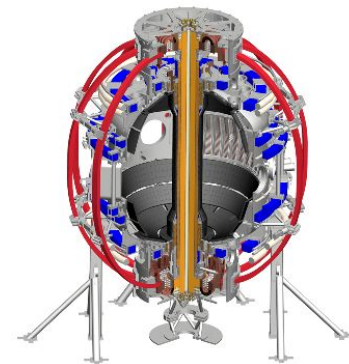


NSTX-U / Magnetic Fusion Science Meeting

May 6, 2019

Agenda

1. Calendar, community activities
2. A new explanation of the sawtooth phenomena in tokamaks (*S. Jardin, 40 min*)
3. Deep convolutional neural networks for long time-series classification and application to disruption prediction using Electron Cyclotron Emission Imaging (*R.M. Churchill, 20 min*)



Upcoming meetings, deadlines, ...

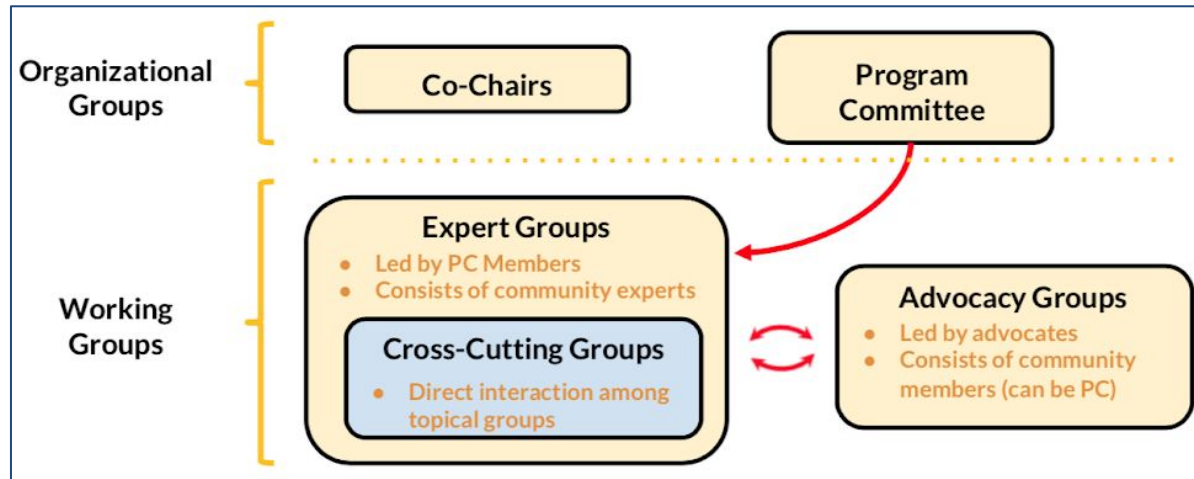
- SOFE (June 2-6), Ponte Vedra Beach, FL
 - Mini-courses on MPI & Fusion Neutronics on June 2, good for students & folks new to field
- EPS-DPP (July 8-12), Milan
- Theory & Simulation of Disruptions Workshop (Aug 5-7), PPPL
- IAEA TM on EP (Sept. 3-6), Japan
- ISHW (Sept 23-27), Madison (*abstracts due May 15*)
- Symposium on Liquid Metals (Sept 30 - Oct 3), Urbana-Champaign, Illinois (*abstracts due May 24*)
- H-mode WS (Oct. 9-11), Shanghai (*abstracts due July 1*)
- APS-DPP (Oct 21-25), Ft. Lauderdale (***invited nominations due May 8***)
- ST Workshop (Oct. 28-31), Frascati, Italy
- AAPPS-DPP (Nov. 4-8), Hefei (~~*invited abstracts due April 15*~~; *contributed due June 15*)

Community activities - get involved!

- Upcoming Town halls and Workshops
 - Town halls (~~TTF~~ March, ~~Sherwood~~ April, Rochester LLE - May, SOFE - June)
 - Workshop #1 ~ **July 22-26, Madison WI**
 - Workshop #2 ~ November
 - “Snowmass” meeting ~ Jan/Feb 2020
- Start your own whitepapers to advocate for initiatives / programmatic elements you think are important in addressing the [FESAC charge](#)
- [Template for initiative whitepapers](#) now available
 - **June 14 deadline to be considered for talk at Workshop #1**
 - DPP-CPP website (evolving): <https://sites.google.com/pppl.gov/dpp-cpp>
 - DPP-CPP google group: <https://groups.google.com/forum/#!forum/dpp-cpp>
- Join [Expert Groups](#)

Join Expert Groups

- Expert Groups represent areas in which initiative proposals will be evaluated on technical merit, e.g.:
 - Extent to which stated goals represent needed scientific or technological progress
 - Technical feasibility & likelihood of achieving goals
 - How the given initiative advances US leadership and relates to the global context
 - Identify and solicit the community to suggest ideas to close remaining research gaps
- Open to entire community with expectation to contribute to evaluations



Magnetic Fusion Energy (MFE) expert groups

- PMI, Boundary and Divertor Plasma Physics
- Transport and Confinement
- Energetic Particles
- Transients
- Scenarios

Fusion Materials & Technology (FM&T) expert groups

- Fusion materials
- Blanket, Tritium, and System issues
- Plasma Material Interaction and Plasma Facing Components