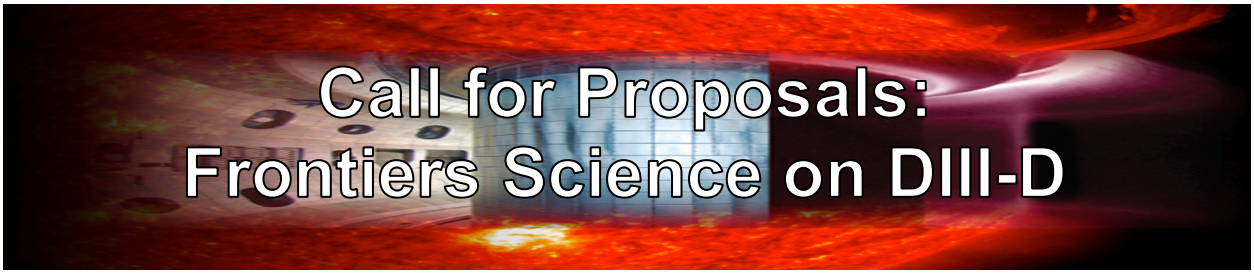

We are pleased to announce an exciting opportunity to explore the frontiers of plasma science using the DIII-D National Fusion Facility. DIII-D is a highly flexible tokamak with a comprehensive set of diagnostics, able to study a broad range of plasma physics phenomena. The different applications of plasma physics share common foundations, on questions such magnetic reconnection, wave-particle interactions, particle energization or global MHD stability. The DIII-D facility, which targets fusion energy goals, can provide a window on these fundamental processes that complements capabilities elsewhere. Recent examples include studies of relativistic electron interaction (below), reconnection physics and fundamental turbulence.

Proposals are invited for run time in the summer of 2020 on topics that advance the frontiers of plasma science. These were defined in the 2015 report 'Plasma: at the frontier of scientific discovery'[1] and span a broad range of applications such as solar physics, astrophysics, magnetosphere, magnetic confinement, implosion, low temperature, and industrial plasmas. Proposals will be selected based on:

(1) **Intellectual merit:** prospects for fundamental advance, new approach or understanding. Uniqueness, originality and scientific merit. Impact on the field.
(2) **Technical Approach**: Howe well developed is the idea? Feasibility. Well thought out? Resource availability and/or needs for additional equipment.
(3) **Qualification of the PI and Team:** how well qualified? Necessary skills represented amongst proponents. Level of technical support needed from the facility team.

Awards consist of run time with support for diagnostic and facility operation, and initial travel. Applicants are encouraged to engage relevant experts from the DIII-D program to assist in developing proposals and carrying out experiments – please the contact Richard Buttery (buttery@fusion.gat.com) to identify a suitable contact. Additional funds to support travel and analysis may be available; proponents should contact Nirmol Podder to discuss (nirmol.podder@science.doe.gov), noting a solicitation expected in early FY20 (details attached).

More details and a proposal template are located here: https://fusion.gat.com/global/diii-d/frontier. Proponents should fill out the template and email to Anastasia Nycum (nycum@fusion.gat.com). A panel of Frontiers and DIII-D scientists will review proposals to recommend a selection.

Proposals are due by Dec 6 2019. Proponents will be notified in January 2020.

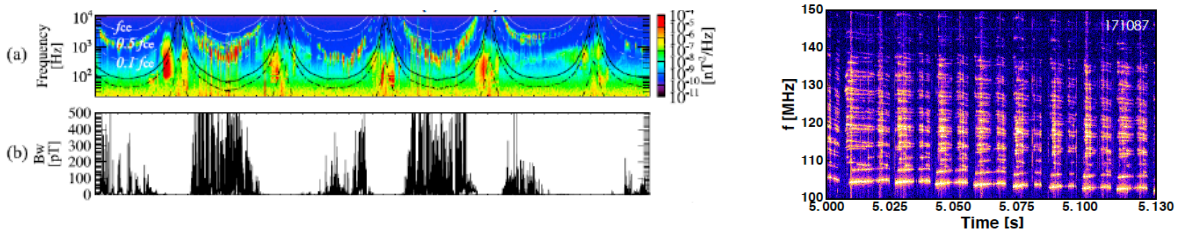

Fig 1: Global distribution of chorus waves in the ionosphere driven by 30 – 100 keV electrons - measured by the Polar Orbiting Environmental Satellites (POES) and Van Allen probes (left) and Whistler waves excited by and scattering energetic electrons in DIII-D (right).

[1] *"Report of the Panel on Frontiers of Plasma Science" at https://science.osti.gov/fes/Community-Resources/Workshop-Reports*
https://science.osti.gov/-/media/fes/pdf/program-news/Frontiers_of_Plasma_Science_Final_Report.pdf?la=en&hash=85B22EBF1CF773FFC969622524D603D755881999

From FES: Notification of Solicitation on Frontiers Science Expected in FY20

DOE Office of Science Fusion Energy Sciences is anticipating to issue a targeted FOA and Lab Announcement in early 2020, subject to FY 2020 budget appropriation by Congress, to support frontier science experiments on one or more of the currently FES General Plasma Science (GPS) program supported collaborative research facilities or initiatives. These include Basic Plasma Science Facility (BaPSF/LAPD) at UCLA, DIII-D Frontier Science Initiative at General Atomics, Wisconsin Plasma Physics Laboratory (WiPPL/BRB/MST) at the University of Wisconsin - Madison, Magnetized Dusty Plasma Experiment at Auburn University, low-temperature Plasma Research Facility (PRF) at Sandia National Laboratories and Princeton Collaborative Research Facility (PCRF) at Princeton Plasma Physics laboratory. U.S. researchers whose experimental proposals were selected or have been selected for experimental runtime in any of these facilities are eligible to apply to the FES solicitation.

For more information, please contact DOE Program Manager Nirmol Podder. (nirmol.podder@science.doe.gov).