https://fusion.gat.com/global/DIII-D

OPPORTUNITIES FOR COLLABORATION & RESEARCH PROPOSALS for DIII-D in 2017-9

The DIII-D National Fusion Facility is inviting collaboration in its 2017-9 program commencing in the Fall. This is a nationally and internationally collaborative research program amongst ~90 institutions. Collaborators manage elements of the program, generate ideas and innovations, lead experiments, build and operate diagnostics and other equipment, analyze data, provide theory and modeling support, and report and publish results world wide. Opportunities also exist for graduate and undergraduate students.

The overall goal of the DIII-D program is to establish the scientific basis for the optimization of the tokamak approach to fusion energy. Research covers a broad spectrum of important foundational scientific work, but in 2018 will include particular foci on developing the basis for Q=10 in ITER, ELM control, rotation projection and divertor development, as well as a new Core-Edge Integration Task Force and support for long pulse development in collaboration with the EAST facility. The 2019 program will turn to the development of fully non-inductive plasmas, benefiting from a major heating upgrade.

Experiments in the coming year will benefit from developments in electron cyclotron heating, improved disruption mitigation systems, a recent power supply upgraded from ASIPP China for enhanced 2-D/3-D field capabilities, and the new SAS divertor and increased closure main upper divertor, as well as improved diagnostics such as gamma ray and ECE imaging, and divertor measurements. In 2019, neutral beam injectors will be reoriented to double off axis current drive and increase co-direction heating power. A hallmark of the DIII-D program is its emphasis on model validation enabled by a world-leading diagnostic set, which benefits from many high resolution 1D, 2D and 3D diagnostics, and extensive arrays of magnetic diagnostics, as well as additional visible and infra-red imaging systems.

Experiments for the imminent 2017-18 campaign have now been determined, though opportunities remain for scientific engagement and analysis with these studies, plus a limited number of additional days to be defined, including an expected Frontiers Science campaign week. A further call will be issued next year for new experiment proposals for 2019. See the above link to get engaged!

We look forward to your participation.