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

OPPORTUNITIES FOR COLLABORATION & CALL FOR PROPOSALS for DIII-D in 2019-20

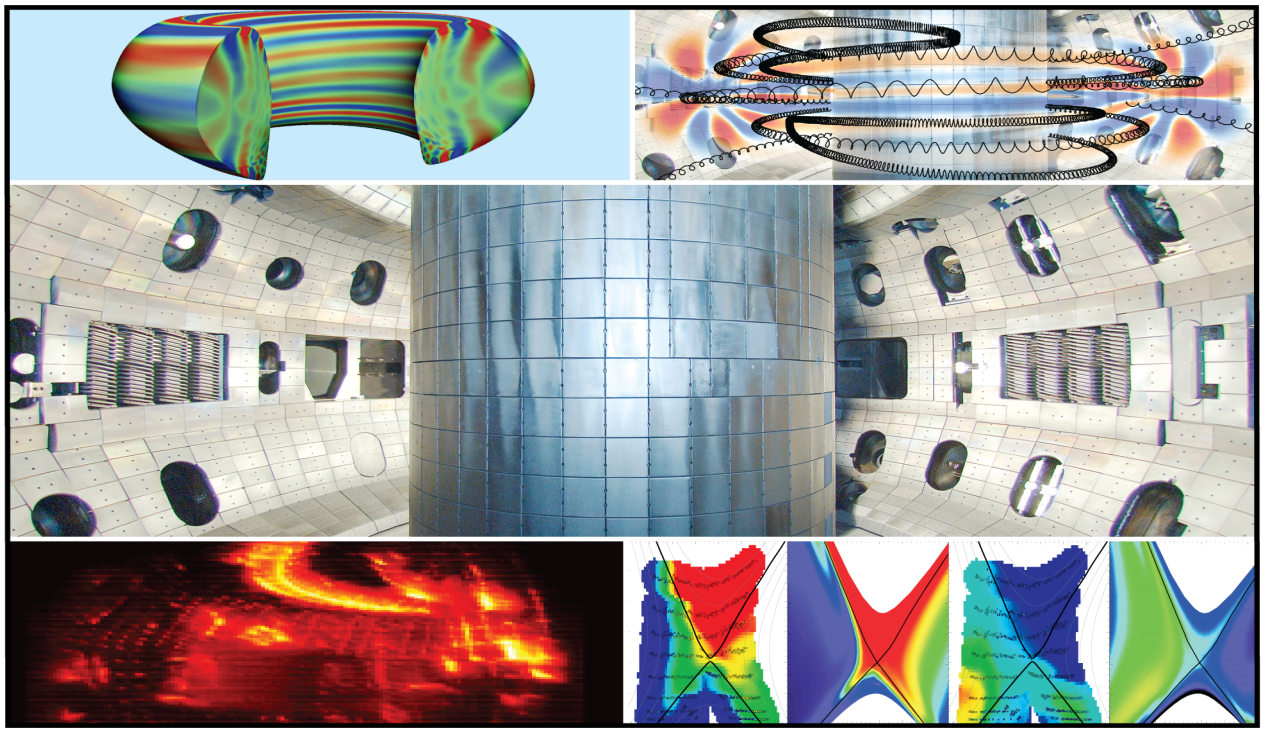
The DIII-D National Fusion Facility is inviting collaboration in its 2019-20 program commencing May 2019. The DIII-D team is a national and international collaboration amongst ~100 institutions. Collaborators manage elements of the program, generate ideas and innovations, lead experiments, build and 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 goal of the DIII-D program is to establish the scientific basis for the optimization of the tokamak approach to fusion energy. Research in 2019-20 starts an exciting new chapter, with the reorientation of neutral beam injectors to double off-axis current drive while raising power 30%, accompanied by increased electron cyclotron current drive power and top launch capability, and a new 1MW helicon current drive system. This will permit new explorations of the Advanced Tokamak concept for steady state fusion, alongside continued high priority work to resolve stable high performance discharges for ITER. An emphasis is also placed on development of innovative divertor and pedestal solutions, their underlying science, and the integration of core end edge solutions.

In this work a strong focus is placed on developing a validated physics understanding of the foundational processes and quantitative predictive simulation capability. This benefits from a comprehensive set of high resolution 1D, 2D and 3D diagnostics. New systems have been or will be commissioned including radiative power, neutral density, ion temperature and Thomson scattering for divertor physics; gamma/EUV imaging and spectroscopy for runaway electron physics; laser blow-off and spectroscopy to measure impurity transport; a range of turbulence, energetic particle and profile diagnostic upgrades. A further campaign of Frontiers Science is being considered, for which separate calls will be issued later.

The DIII-D program is open to proposals from all potential collaborators. Experiments will commence in May 2018, with run weeks in batches over the following year. We will, start discussions over program priorities and ‘thrusts’ in December, with an online Research Opportunities Forum opening in January and presentations in February. Physics groups will then go into break-out sessions to determine the program selection in April. For more details see here: https://fusion.gat.com/global/diii-d/home.

We look forward to your participation.



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