

Abstract Submitted  
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Sorting Category: 6.6.2 (Experimental)

### Overview of the 2000 DIII-D Experimental Campaign<sup>1</sup>

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— A major focus of the DIII-D program is to develop and understand Advanced Tokamak (AT) plasmas. Upgrades which impact AT research were brought online this year. The high power gyrotron system was expanded and power from four units was injected into DIII-D discharges. Electron transport barriers were clearly seen with co, counter and radially directed electron cyclotron (EC) power, using a new PPPL EC launcher allowing toroidal steering between shots. A new cryopump and baffle were completed on the inner upper corner of the vessel to pump both the inner and outer legs of the upper strike points of high triangularity AT discharges. Density control was shown to be sufficient for the present AT goals and baffling reduced the core ionization level. Use of two new high power amplifiers and improved control algorithms has extended feedback stabilization of the potentially AT limiting Resistive Wall Mode to durations over 200 msec (more than 30 wall time constants). The campaign is organized into Thrusts expanding AT tools and results, and Topical Science (TS) areas investigating the underlying scientific issues. TS experiments in confinement, boundary physics, and stability were conducted and will be overviewed.

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- Prefer Oral Session  
 Prefer Poster Session

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Special instructions: First oral presentation, immediately before TC Luce

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