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**Co-Toroidal Rotation With Electron Cyclotron Heating in DIII-D**<sup>1</sup> J.S. DEGRASSIE, D.R. BAKER, J. LOHR, T.C. LUCE, C.C. PETTY, R. PRATER, General Atomics — RF electron cyclotron heating (ECH) and current drive in DIII-D are observed to typically reduce the core toroidal rotation velocity and ion temperature when added to target discharges with rotation established by neutral beam injection (NBI). These discharges have  $T_i > T_e$ . The explanation most consistent with the data is that higher  $T_e$  results in an enhancement of turbulent ion transport due to an increase in  $T_e/T_i$ , consistent with a measured increase in turbulence with increased  $T_e/T_i$ .<sup>2</sup> In contrast, a series of discharges with ECH alone indicate a significant level of co core toroidal rotation, approaching 40 km/s. Short NBI pulses must be used for ion velocity and temperature measurements, but comparison of times with and without ECH indicate the development of rotation in the direction of the plasma current with the addition of ECH. Profile data and transport analyses will be presented.

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<sup>2</sup>G.R. McKee, this conference.

  

Prefer Oral Session  
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J.S. deGrassie  
degrassie@fusion.gat.com  
General Atomics

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