

Abstract Submitted
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MHD Spectroscopy of Fusion Plasmas by ECE-Imaging of Reversed-Shear Alfvén Eigenmodes¹ C.V. PIERONEK, U. California-Berkeley, B.J. TOBIAS, Princeton Plasma Physics Laboratory, L. YU, U. California-Davis, M.A. VAN ZEELAND, General Atomics — The spatial electron temperature data acquired using the electron cyclotron emission imaging (ECEI) diagnostic on DIII-D was used to detect and study the spatial structure of Alfvén eigenmodes present in reversed-shear plasmas. The q -profile and magnetic field topology of the plasma are deduced from the spatial mode structure and compared with measurements made using the motional Stark effect diagnostic. These results are compared with calculations of the RSAE mode structure obtained using the Nova, TAEFL, Gyro, GTC, and M3D codes with measured plasma profiles as input. The implications for MHD spectroscopy are discussed.

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