

Abstract Submitted
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Poloidal and Radial Characteristics of Edge Turbulence at the High-field-side Midplane of Alcator C-Mod¹ J.L. TERRY, I. CZIEGLER, B. LABOMBARD, MIT-PSFC, S.J. ZWEBEN, PPPL — Previous measurements have shown that edge turbulence on the high-field, “good” curvature side is much reduced (x 0.1-0.3) compared to that on the low-field, ‘bad’ curvature side. This has been shown by both Gas-Puff-Imaging (GPI) and scanning probe measurements. A recent upgrade to the high-field-side GPI view on C-Mod allows 2D (radial and poloidal) resolution of emission from the midplane region there. The 2D array of view spans a radial region ~ 2.3 cm around the separatrix and a poloidal region from $Z = -0.5$ to 1.7 cm with ~ 0.38 cm resolution. This allows investigation of the 2D characteristics of edge phenomena like blobs/filaments, the Quasi-Coherent Mode, ELMs, and broadband turbulence. Of particular interest are the existence and structure of both filaments and the QCM on the inboard midplane, and the dynamics and structure of both the ELM perturbation and the broadband turbulence there. Results of these investigations will be presented and compared to observations made on the low-field-side.

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