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Thermal Ion Loss From Confined QH-mode Plasma in the Presence of Alfven Eigenmodes[1] C.J. LASNIER, Lawrence Livermore National Laboratory, T.L. RHODES, G. WANG, L. ZENG, UCLA, K.H. BURRELL, J.S. DEGRASSIE, GA, M.A. VANZEELAND, ORISE, G.R. MCKEE, U. Wisc-Madison, J.C. ROST, MIT, J.G. WATKINS, SNL — During QH-mode discharges in DIII-D, in the upper single-null configuration, we use infrared cameras to observe heating of the upper outer baffle far outside the strike point. We attribute this heating to impact by moderate energy ($\sim$5 keV) ions lost from the core plasma, with supporting data from charge exchange recombination (CER) measurements and fixed Langmuir probes. Examining millimeter-wave scattering data, we find correlation of the baffle heating with the presence of core Alfven eigenmodes. In this presentation we show this correlation and explore the characteristics of Alfven modes that may be contributing to warm ion losses. We examine beam emission spectroscopy (BES), multi-chord fast interferometry, fast magnetic pickups, reflectometry, and phase contrast imaging data for additional information.

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