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Mode Identification During Biased Rotation on the Large Plasma Device H. K. JOHNSON, D. A. SCHAFFNER, L. E. FAHIM, C. A. CARTAGENA-SANCHEZ, Bryn Mawr College — Previous research on the Large Plasma Device (LAPD) has shown that biased rotation of the plasma can aid confinement. However, the same rotation which aids confinement can also generate waves (and thus turbulence) that can hinder the effectiveness of that confinement. There are multiple wave candidates in the LAPD which may be interacting, including drift, rotational interchange, and Kelvin-Helmholtz waves. Interaction was determined using a bispectral analysis, which scans Fourier spectra for frequencies that exhibit non-linear coupling. Analysis was performed on ion saturation current data at bias voltages ranging from 80-200V.

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