

Abstract Submitted
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Intershot Analysis of Flows in DIII-D¹ W.H. MEYER, S.L. ALLEN, C.M. SAMUELL, LLNL, J. HOWARD, ANU — Analysis of the DIII-D flow diagnostic data require demodulation of interference images, and inversion of the resultant line integrated emissivity and flow (phase) images. Four response matrices are pre-calculated: the emissivity line integral and the line integral of the scalar product of the lines-of-sight with the orthogonal unit vectors of parallel flow. Equilibrium data determines the relative weight of the component matrices used in the final flow inversion matrix. Serial processing has been used for the lower divertor viewing flow camera 800x600 pixel image. The full cross section viewing camera will require parallel processing of the 2160x2560 pixel image. We will discuss using a Posix thread pool and a Tesla K40c GPU in the processing of this data.

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