

Abstract Submitted
for the DPP02 Meeting of
The American Physical Society

Sorting Category: 5.6.2 (Experimental)

Upgrade of DIII-D Phase Contrast Imaging Diagnostic for High-k Measurements¹ J.C. ROST, M. PORKOLAB, D.R. ERNST, Plasma Science and Fusion Center, MIT, K.H. BURRELL, General Atomics — Phase Contrast Imaging (PCI) has been used to diagnose plasma fluctuations in many devices, generally focused on wavelengths typical of ITG modes and ICRF waves. The PCI technique is capable of measuring modes of much shorter wavelength, in the ETG range, and an upgrade to the DIII-D PCI system is underway which will allow access to these short-wavelength modes. The upgrade will also move the measurement from its current location at the plasma edge to a more central location near the foot of the ITB. Localization of the measurement of ETG modes along the beam path will be possible by selection of scattering angle, due to the larger scattering angle. Details of the upgraded system will be presented with analysis of its response. Gyrokinetic turbulence simulations of short-wavelength ETG modes will be used to gauge the capabilities of the diagnostic.

¹Work supported by US DOE Grant DE-FG02-94ER54235 APTE and Contract DE-AC03-99ER54463.

- Prefer Oral Session
 Prefer Poster Session

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Special instructions: Poster 14, Edge/Divertor/Transport

Date submitted: July 19, 2002

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