

Abstract Submitted
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Fast imaging of visible phenomena in NSTX¹ R.J. MAQUEDA, Nova Photonics, C.E. BUSH, ORNL, L. ROQUEMORE, K.M. WILLIAMS, S.J. ZWEBEN, PPPL, NSTX TEAM — Edge phenomena are important for global plasma confinement as well as power and particle handling and distribution to plasma facing components. High frame rate, 2-D imaging is a powerful tool to access the physics behind these phenomena which include: edge turbulence and “blobs,” ELMs, and MARFEs. This diagnostic is also useful in general plasma equilibrium and dynamics measurements, like those during Coaxial Helicity Injection discharges, and in pellet injection experiments. A new Phantom 7 fast-framing digital camera has been installed in NSTX which has been used at frame typically ranging between 68000 frames/s and 120000 frames/s and full discharge coverage (frames recorded for over 2 s). Examples will be presented showing the usefulness of this diagnostic for physics studies in the areas mentioned above.

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