NSTX High-k Scattering System on NSTX: Status and Plan*

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A multi-channel collective scattering system was commissioned on NSTX to investigate the anomalous electron transport physics (TEM and ETG). A moderate power microwave source (~100 mW) at ~ 1 mm wavelength was employed as the probe beam. The system consists of 5 discrete channels which primarily measure five radial wave-numbers up to k_r ~ 20 cm^{-1} which corresponds to $k_r\rho_e$~0.2 and ~0.7 for the NSTX edge and core parameters, respectively. Initial results at the edge of the quiescent OH and NBI heated plasmas and those at the core of the reversed shear regime will be addressed in this paper. In addition, the upgraded system and upcoming plans will be discussed in detail.

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