

Abstract Submitted  
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**Correlation of Soft X-ray Emission with Thompson Scattering Measurements of Electron Temperature in SSPX**<sup>1</sup> D.F. MONTEZ, B.F. HUDSON, H.S. MCLEAN, C.A. ROMERO-TALAMAS, R.D. WOOD, D. CORRELL, LLNL, SSPX TEAM — In an effort to measure time-resolved changes in the plasma temperature over the 100 – 300 eV range, soft X-ray photodiodes have been installed in SSPX. Two sensors with different quantum efficiency versus frequency distributions are aligned along a common chord tangent to the magnetic axis of the plasma. Analysis of the ratio of the two signals offers time-resolved insight into Bremsstrahlung soft X-ray emissions, which are a function of the chord integrated electron temperature. Results of a numerical model for the soft X-ray ratio are compared to experimental measurements. Correlation of the temperature data from these sensors to the diagnostic data taken from a Thomson scattering apparatus will be presented.

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