[BoldFont = LinLibertine$_R B.otf, ItalicFont = LinLibertine_R I.otf, BoldItalicFont = LinLibertine_R BI.otf, Path = /opt/indico/.venv/lib/python2.7/site-packages/indico_fonts/][BoldFont = LinBiolinum_R B.otf, ItalicFont = LinBiolinum_R I.otf, Path = /opt/indico/.venv/lib/python2.7/site-packages/indico_fonts/]$

HTPD 2018

Contribution ID : **412** Type : **not specified**

6.33 Accuracy of Assuming a Maxwellian Electron Distribution Function in ThomsonScattering Analysis of Non-Maxwellian Plasmas

Tuesday, 17 April 2018 10:31 (120)

Collective Thomson scattering provides precise density and temperature measurements in many plasma-physics experiments. The accuracy of these measurements is dependent on the underlying assumptions in deriving the structure factor S(k,ω). The core assumption made is that the underlying electron distribution functions in inertial confinement fusion relevant plasmas are Maxwellian. Here we present a statistically based, quantitative analysis of the uncertainties, from these assumptions, in the measured electron density and temperature. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

Primary author(s) : MILDER, Avram (University of Rochester - Laboratory for Laser Energetics)

Presenter(s) : MILDER, Avram (University of Rochester - Laboratory for Laser Energetics)

Session Classification : Session #6, Tuesday Morning Poster Session