

**X-RAY SCATTERING FROM
WARM DENSE MATTER:
THOMSON SCATTERING IN THE
AVERAGE-ATOM APPROXIMATION**



Professor Emeritus Walter Johnson
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4:00 P.M. NSH 118

The average-atom model is applied to study Thomson scattering of x-rays from warm-dense matter with emphasis on scattering from bound electrons. Parameters needed to evaluate the x-ray scattering structure function of a plasma (chemical potential, average ionic charge, free electron density, bound and continuum wave-functions and occupation numbers) are obtained from the average-atom model. The resulting analysis provides a simple and consistent diagnostic for use in connection with x-ray scattering measurements.

Atomic
Seminar

All interested
persons are
cordially
invited to
attend.