The capabilities of the Chandra X-ray Observatory and XMM-Newton for high-resolution spectroscopy have brought traditional plasma diagnostic techniques to the study of cosmic plasma. Observations have probed nearly every class of astronomical object, from young proto-stars through massive O stars and black hole binaries, supernova remnants, active galactic nuclei and the intergalactic medium. Many of these sources show remarkably rich spectra that reveal new physical information, such as emission measure distributions, elemental abundances, accretion disk and wind signatures, and time variability. This talk will present an overview of the Chandra instrumentation and selected examples of spectral observations of astrophysical and cosmological importance.

Wednesday, August 1, 2007
3:00 p.m.
Bldg. 402, APS Auditorium • Argonne National Laboratory