

Abstract Submitted
for the DNP11 Meeting of
The American Physical Society

New Features in the Computational Infrastructure for Nuclear Astrophysics¹ MICHAEL S. SMITH, ERIC J. LINGERFELT, W. RAPHAEL HIX, CAROLINE D. NESARAJA, ORNL, KYLE THOMSEN, Tenn. Tech. Univ. — The **Computational Infrastructure for Nuclear Astrophysics (CINA)** is a platform-independent suite of computer codes that are freely available online at <http://nuastrodata.org>. The system enhances the utilization of nuclear data by streamlining the process to include the latest data into astrophysics simulations. Users can upload measured or calculated cross sections, process them into reaction rates, incorporate rates into libraries, run simulations with these custom libraries, and store and visualize the results – all with a simple graphical user interface. New features in CINA include: automated studies of the sensitivity of astrophysical predictions on nuclear input; calculation of thermonuclear reaction rates from resonance information; and the ability to extract information from several additional international databases. Several utilizations of, and future plans for, this software suite will be given.

¹Research sponsored by the Office of Nuclear Physics, U.S. Dept. of Energy

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Date submitted: 05 Jul 2011

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