XIV Serbian Conference on Spectral Line Shapes in Astrophysics Bajina Bašta, Serbia, June 19 - 23, 2023

Book of Abstracts, Eds. Luka Č. Popović, Nataša Bon, Edi Bon and Sylvie Sahal-Bréchot

NIST ATOMIC DATABASES: DATA EVALUATION, UNCERTAINTIES, ONLINE TOOLS

Yu. Ralchenko

National Institute of Standards and Technology, Gaithersburg, MD 20899, USA

E-mail: yuri.ralchenko@nist.gov

Atomic data is an important component of the Physical Reference Data program at the National Institute of Standards and Technology (NIST). For many decades, the NIST physicists were carrying out in-depth analysis and evaluation of the available atomic data in order to generate evaluated and recommended sets of various atomic parameters such as energy levels, transition probabilities, oscillator strengths and ionization potentials. The data are then propagated into freely accessible relational databases for dissemination and retrieval by researchers around the world. In this talk an overview of the NIST atomic databases and online calculational tools will be presented with emphasis on the most recent developments.