

Investigating the roots: How our perception of the Milky Way System is shaped by our knowledge of atomic data products

A Workshop on Atomic Data - Heidelberg, 3-7 October 2022

Overview	Announcement	Registration/Participants	Venue	SOC & LOC
Program	Host/Contact			

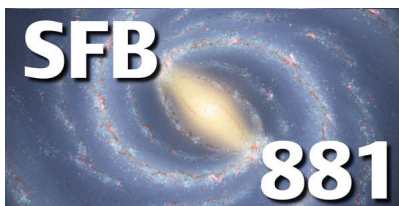
Most of the available atomic data products were compiled in the 1980s and 90s. At this time, few elemental abundances could be measured explicitly in stars and computations for modeling spectra were restricted to less than a handful of elements. With increasing computational power and the advent of high-resolution spectroscopy, both the available resources as well as the necessities have grown tremendously. Whether in stellar structure, atmospheres, or nucleosynthesis, modern astrophysical research relies heavily on atomic data products. The fates of stars and the abundances and chemical yields we use to interpret our Milky Way System are shaped by calculations and measurements that are more and more known to be incomplete. With this workshop, we aim to address an often overlooked, but fundamental topic of modern astrophysics: The calculation, measurement, and application of atomic data products. By bringing together suppliers and users, we want to learn about the strengths and weaknesses of the currently available data products and their applications.



Topics for talks and discussions include:

- Current status of theoretical atomic data
- Laboratory measurements of atomic data
- Impact of atomic data to our perception of the Milky Way System
- Dos and Don'ts in handling existing atomic data
- What new type of data is needed and how can we obtain these? (Calculations and Lab Measurements)

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