

Final programme (October 25)

Monday 25 October

9.30 Manchado, Arturo: Welcome address

Session I - FRAMING THE PROBLEM

Chair: Arturo Manchado

- 9.40 Aggarwal, Kanti: Atomic data and their applications and assessment
- 10.35 Bautista, Manuel: Atomic data for neutral and singly ionized species. problems and limitations
- 11.30 Coffee break
- 12.00 Shaw, Richard: Toward precision abundances in nebular Astrophysics
- 12.30 Wesson, Roger: Estimating uncertainties in analyses of ionised nebulae
- 13.00 Organization of work groups
- 13.30 Lunch
- 15.30 Aggarwal, Bautista, Shaw, Wesson. Panel discussion:
- How reliable are uncertainties in atomic data?
 - Where are the breakthroughs in atomic data generation likely to be?
 - How do current uncertainties limit applications to nebular astrophysics?
 - What precision is attainable?
- 17.00 Coffee break
- 17.30 Work groups

Tuesday 26 October

Session II - SPECIFIC ISSUES

Chair: Jorge García-Rojas

- 9.30 Mendoza, Claudio: Uncertainties in the Ne V infrared diagnostics
- 10.00 Ferland, Gary: Uncertainties in theoretical He I emissivities
- 10.30 Luridiana, Valentina: The new nebular software
- 11.00 Coffee break
- 11.30 Shaw, Richard: A comparison between the ELSA and nebular

- abundance codes
- 12.10 Bergemann, Maria: Role of input atomic data in spectroscopic analyses of the Sun and metal-poor stars
- 12.50 Lind, Karin: The impact of new collisional data on stellar abundance determination of Li and Na
- 13.30 Lunch
- 15.30 Mendoza, Ferland, Shaw, Simón-Díaz. Panel discussion:
- For which ions (including s-process elements) are new, better atomic data urgently required?
 - Which observations might serve as feedback to atomic data calculations?
 - Can we trust atomic data? Paradigmatic cases.
- 17.00 Coffee break
- 17.30 Work groups
- 20.30 Dinner

Wednesday 27 October

Session III - ATOMIC DATABASES

Chair: Valentina Luridiana

- 9.30 Ferland, Gary: The Cloudy atomic data base - future goals
- 10.00 Mendoza, Claudio: VAMDC: Virtual Atomic and Molecular Data Centre
- 10.30 Del Zanna, Giulio: Atomic data for astrophysics: calculations, benchmarks and distribution.
- 11.00 Coffee break
- 11.30 Ferland, Mendoza, Aggarwal, Del Zanna. Panel discussion: Creation of a database and organization of data user communities.
- Is a database a la Mendoza 1983 feasible?
 - How should uncertainties be included?
 - Which functionalities should be added to allow comparison?
 - How can the interaction between users and producers be made more efficient?
- 12.45 Concluding remarks
- 13.15 Lunch
- 14.30 Visit to the Teide Observatory