

Contents

Foreword	vii
Organizing Committees	viii
Participants	ix
Conference Photograph	xi
A. The observational stellar libraries over the electromagnetic spectra	
HST/STIS Advanced Spectral Library (ASTRAL)	1
<i>T. R. Ayres</i>	
The SpeX Prism Library: 1000+ low-resolution, near-infrared spectra of ultracool M, L, T and Y dwarfs	7
<i>Adam J. Burgasser</i>	
The X-Shooter Spectral Library (XSL) in the optical – First year of the survey	17
<i>Y. -P. Chen, S. C. Trager, R. F. Peletier and A. Lançon</i>	
The X-shooter Spectral Library (XSL) in the near-infrared: Case study of Carbon stars	25
<i>A. Gonneau, A. Lançon, S. C. Trager, Y. P. Chen, R. Peletier, B. Aringer and W. Nowotny</i>	
B. Theoretical libraries	
Synthetic spectral libraries	33
<i>F. Allard, D. Homeier and B. Freytag</i>	
Synthetic stellar libraries for Gaia	47
<i>R. Sordo</i>	
Using a model for telluric absorption in full-spectrum fits	53
<i>T.-O. Husser and K. Ulbrich</i>	
A new theoretical stellar library for stellar population applications	57
<i>P. R. T. Coelho</i>	
ALiCCE: Atomic Lines Calibration using the Cross-Entropy algorithm ..	67
<i>L. P. Martins, R. Vitoriano, P. Coelho and A. Caproni</i>	
C. Dissemination of libraries and spectra	
Spectral stellar libraries and the Virtual Observatory	77
<i>E. Solano</i>	
iSpec: An integrated software framework for the analysis of stellar spectra ..	85
<i>S. Blanco-Cuaresma, C. Soubiran, P. Jofré and U. Heiter</i>	

Physical parameters of young M-type stars and brown dwarfs with VOSA <i>A. Bayo, C. Rodrigo, D. Barrado, E. Solano, F. Allard and V. Joergens</i>	93
Spectral photographic archives of observatories of Ukraine: digital versions <i>L. Pakuliak, A. Shlyapnikov, A. Rosenbush and M. Gorbunov</i>	103
D. Usages of libraries to study stellar populations	
A critical view on stellar population synthesis <i>R. F. Peletier</i>	107
Making MILES better for stellar population modelling <i>A. de C. Milone, A. Sansom, A. Vazdekis, P. Sánchez-Blázquez, C. Allende Prieto, J. Falcón-Barroso and R. da Silva</i>	117
Stellar spectral signatures in high-redshift galaxies <i>Claus Leitherer</i>	125
Constraining galaxy evolution and cosmology from high-redshift galaxy ages <i>R. Thomas, O. Le Fèvre, M. Scodeggio, with the VVDS and VUDS collaborations</i>	133
Auto-consistent test of Galaxy star formation histories derived from re- solved stellar population and integral spectroscopy <i>M. Rodrigues, V. Patricio, B. Rothberg, R. Sanchez-Janssen, N. Vale Asari</i>	143
E. Characterization of stellar spectra	
The AMBRE project: Stellar parameters for the UVES Archived Spectra . <i>C. C. Worley, P. de Laverny, A. Recio-Blanco and V. Hill</i>	151
Gaia FGK Benchmark Stars and their reference parameters <i>Paula Jofré, Ulrike Heiter, Sergi Blanco-Cuaresma and Caroline Soubiran</i>	159
F. Usages of libraries in stellar physics	
The metallicity of nearby dwarfs and giants: Implications on the planet metallicity correlation <i>J. Maldonado, E. Villaver and C. Eiroa</i>	167
G. Surveys	
Future spectral libraries: what we can expect from the Gaia-ESO Survey . <i>A. P. Hourihane, G. G. Gilmore, S. Randich, C. C. Worley and The Gaia-ESO Consortium</i>	175
XSL, the X-Shooter Spectral Library: Overview and status <i>S. C. Trager, Y.-P. Chen, A. Gonneau, R. F. Peletier, A. Lançon S. Meneses-Goytia, A. Vazdekis and the XSL Team</i>	183
Author Index	189