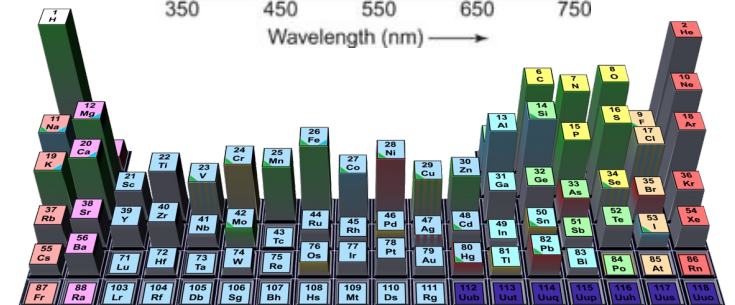
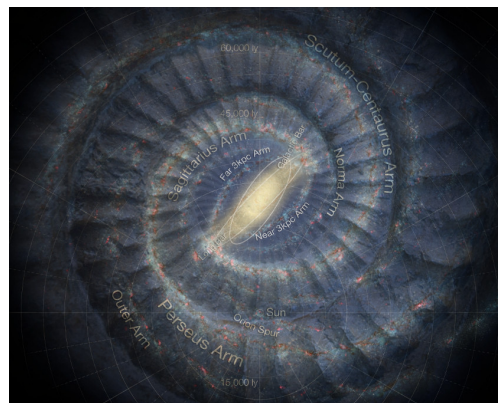
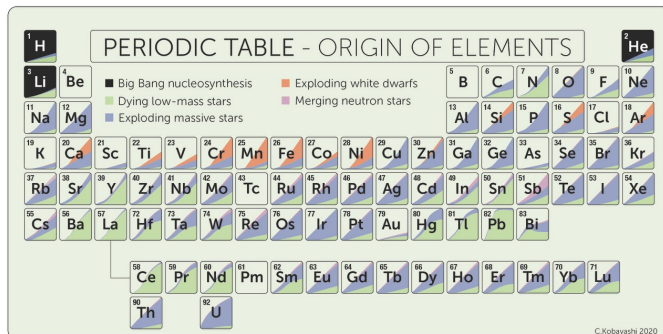
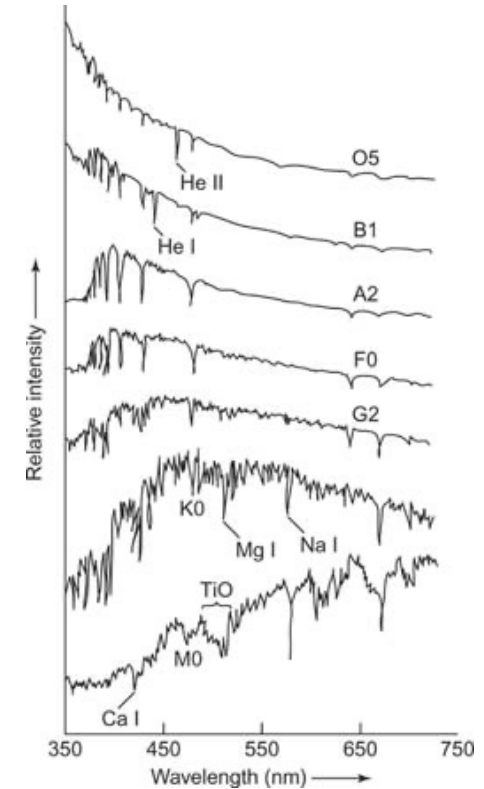
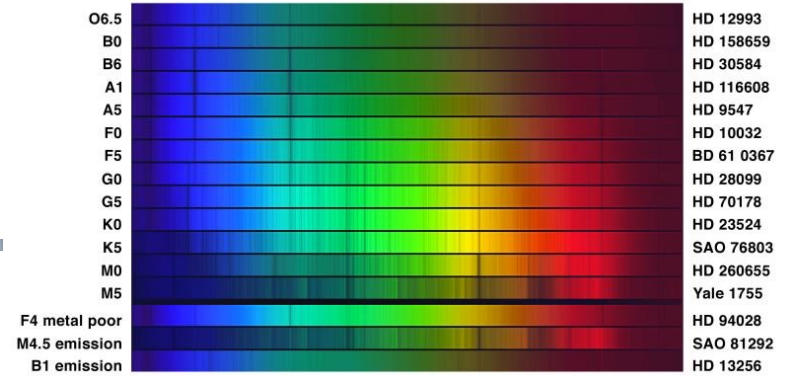


ChINOS2



Welcome!

This summer school with hands-on stellar spectroscopy is sponsored by the DZA (the recently established Center for Astrophysics, Germany) and ChETEC-INFRA, the European Network for Nuclear Astrophysics and its Infrastructures* (2020-2025).



* You will get to know two of ChETEC-INFRA's astronomical infrastructures this week.

Vila Lanna



Vila Lanna



Aims of this school

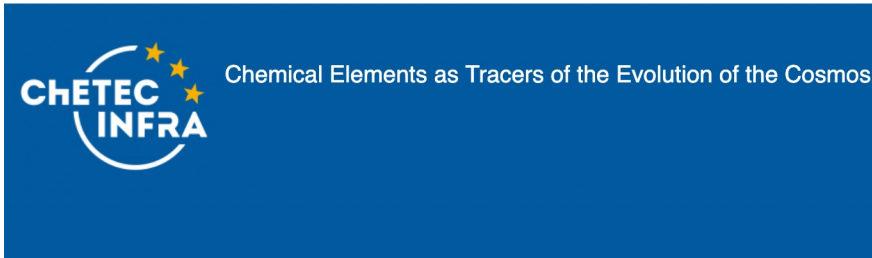
ChETEC-INFRA = **Ch**emical **E**lements as **T**racers of the
Evolution of the **C**osmos -- **I**nfrastructures

To gain some hands-on experience with the astronomical technologies and methodologies which give access to cosmic abundances, i.e., **spectroscopy**.

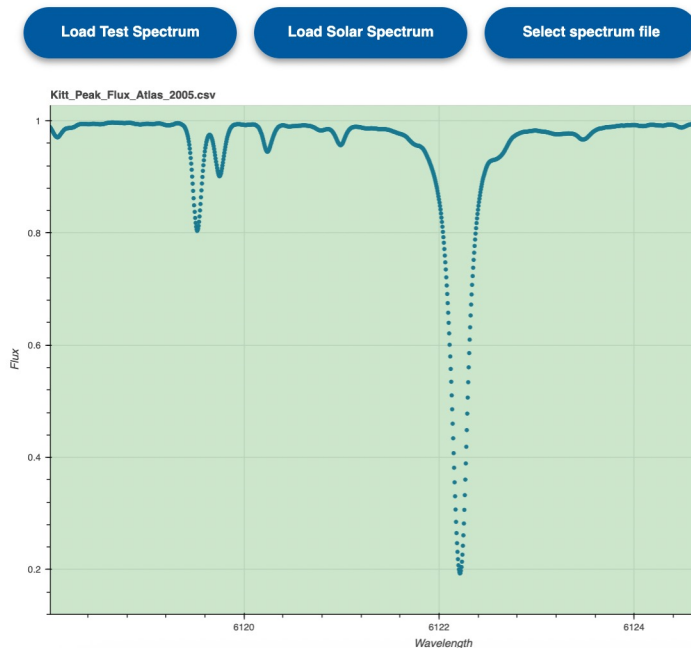
To this end, we will use **FIES** on the Nordic Optical Telescope (**NOT**) on La Palma, The Canaries, and analyse the data with tools developed as part of ChETEC-INFRA.

It will be a busy week, day and night!

From spectrum to stellar abundances



User info (optional)	Instr. specs & Source (optional)	Stellar parameters	References	Derive abundance
User name <input type="text"/>	Instrumental broadening <input type="text" value="100000"/>	Teff <input type="checkbox"/> 5800	Solar ref. composition <input checked="" type="radio"/> Asplund 2021 <input type="radio"/> Asplund 2009 <input type="radio"/> Grevesse 2007 <input type="radio"/> Lodders 2003 <input type="radio"/> User defined	Select elements wg Mn Ca Ti Ba Eu Pb Sr Th Zr
Email address <input type="text"/>	SNR <input type="text" value="100"/> Gala DR3 ID <input type="text"/> Vrad <input type="text"/>	logg <input type="checkbox"/> 4.4 monh <input type="checkbox"/> 0.0 Vmic <input type="checkbox"/> 1.0 Vmac <input checked="" type="checkbox"/> 1.0 Vsini <input type="checkbox"/> 1.0 <small>Checked: Parameter p will be derived by SME using an initial guess provided through the textbox. Unchecked: p is fixed to the value provided in the textbox.</small>	Linelist <input type="radio"/> Gaia-ESO <input type="radio"/> Gaia-ESO (Y,YIU) <input type="radio"/> Gaia-ESO, atomic <input type="radio"/> Gaia-ESO (Y,YIU), atomic <input type="radio"/> VALD (F-type stars) <input checked="" type="radio"/> VALD (G-type stars) <input type="radio"/> VALD (K-type stars) <input type="radio"/> VALD (F-type stars, atomic) <input type="radio"/> VALD (G-type stars, atomic) <input type="radio"/> VALD (K-type stars, atomic) <input type="radio"/> User linelist (VALD)	<small>Reported abundances are on the "12+log-epsilon" scale, i.e. log10 of the fraction of nuclei of the element in any form relative to the number of hydrogen in any form plus an offset of 12. For the Sun, the abundance values of H, He, and Li are approximately 12, 10.9, and 1.05.</small>



Your ChETEC-INFRA stellar analysis result

Task ID: 7e0c9197-37b9-45cc-8261-33a710bfcd33
Filename: solar_template.txt
Solar reference abundances: asplund2021
Linelist: VALDG
Continuum fitted as part of minimization (scaled by a constant)
NLTE: yes (Li, Mg, Na, O, Si, Ba, Ca, Fe, Ti)

Fixed user parameters

ipres= 100000.00
vrad= 0.00
vmic= 1.00
teff= 5800.00
logg= 4.40
monh= 0.00
vsini= 1.00

Derived stellar parameters from LSQ

vmac=3.05±2.04
Abund ca=6.37±0.08

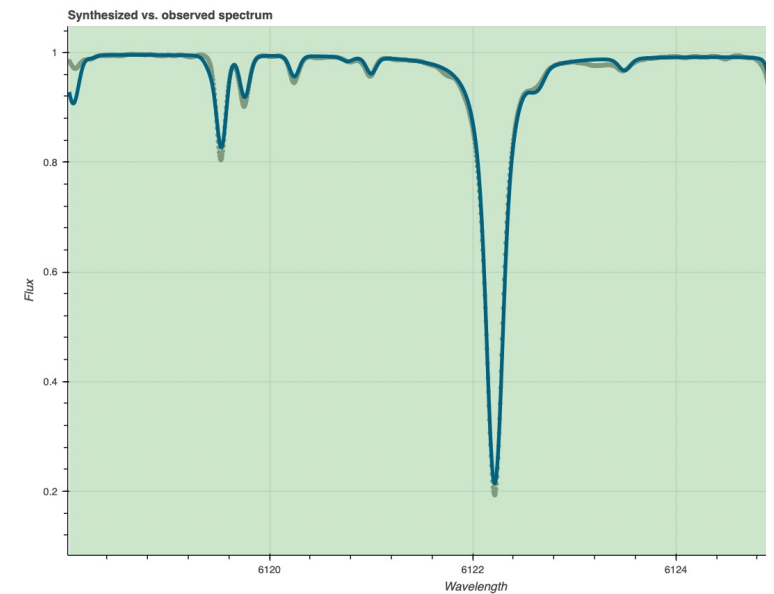
Download
Download synthetic spectrum as [binary fits table](#)

Server Runtime

Total execution time: 1.13m

Detailed SME Structure and Linelist

Review your [input linelist](#) and the final [SME structure](#) containing in- and output data.



Let's start with a round of

introduction

Who are you?

Where are you from?

Physicist, astronomer, astrophysicist?

At which stage of your career are you presently?

What in particular are hoping to learn this week?