



Universidade do Minho



## Curricular Unit

Advanced Physics Topics 1

## Module

High Resolution Spectroscopy (15 hrs TP)

## Type

Lecture course

## Contact hours

15

## Professor/Researcher in charge

Sergio Sousa (CAUP)

## Summary of Contents

The Basics of Astronomical Spectroscopy. Long slit and Echelle spectrographs. Multi Object Spectrographs

CCD Astronomy. CCD imaging. CCD spectroscopy. S/N calculations for spectroscopy. Data reduction for CCD Astronomy

ESO UVES Pipeline Tutorial. UVES Instrument. Data Reduction Recipes. Data Reduction Cascade

## References

Labeyrie A.; An introduction to optical stellar interferometry. ISBN: 0-521-82872-4

Howell; HandBook of CCD Astronomy, Cambridge University Press

Massey & Hanson; Astronomical Spectroscopy (arXiv:1010.5270)

ESO; UVES Pipeline User Manual (<ftp://ftp.eso.org/pub/dfs/pipelines/uves/uves-pipeline-manual-22.4.pdf>)

## Evaluation

Written report.

## Juri

Sérgio Sousa.