

Modules:

astro830 **Elective Advanced Lectures**
 astro840 **Observational Astronomy**

Course:

Astronomical Interferometry and Digital Image Processing

Course No.: astro843

Category	Type	Language	Teaching hours	CP	Semester
Elective	Lecture	English	2	3	WT

Requirements:**Preparation:****Form of Testing and Examination:**

Written or oral examination

Length of Course:

1 semester

Aims of the Course:

Students learn the basics required to carry out research projects in the field of wave optics and astronomical infrared interferometry

Contents of the Course:

Statistical optics; Wave optics; image detectors; resolution enhancement by digital deconvolution; interferometric imaging methods in optical astronomy; Theory of photon noise; iterative image reconstruction methods; astronomical applications

Recommended Literature:

J. W. Goodman; Introduction to Fourier Optics (Roberts & Company Publishers 3. Aufl. 2004)
 Lecture Notes