

Module:	Elective Advanced Lectures: Observational Astronomy
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Module No.: astro840

Course:		Astronomical Interferometry and Digital Image Processing
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Course No.: astro843

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

Requirements for Participation:
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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