## Radiointerferometry: Methods and Science - astro8404

| *Course* | **Radiointerferometry: Methods and Science** |
|---|---|
| *Course No.* | astro8404 |

| **Category** | **Type** | **Language** | **Teaching hours** | **CP** | **Semester** |
|---|---|---|---|---|---|
| Elective | Lecture with exercises | English | 2+2 | 4 | ST |

**Requirements:**

**Preparation:** Einführung in die Radioastronomie (astro123), Radio Astronomy (astro841)

**Form of Testing and Examination:** Requirements for the examination (written or oral): Successful participation in the exercise sessions

**Length of Course:** 1 semester

**Aims of the Course:** Basics of radiointerferometric observations and techniques; review of science highlights; use of common data analysis packages.

**Contents of the Course:** Principles of interferometry, aperture synthesis, calibration, continuum and spectral line imaging, zero spacing, VLBI, use of AIPS and CASA, ALMA and VLA proposal writing, LOFAR and SKA, science highlights.

**Recommended Literature:**

‘‘Synthesis Imaging in Radio Astronomy II’ ’ (ASP Conference Series, V. 180, 1998), Editors: Taylor, Carilli, Perley

Interferometry and Synthesis in Radio Astronomy (Wiley 2001), by Thompson, Moran, Swenson

On-line material

PDF version of this page.