Module: Elective Advanced Lectures: Modern Astrophysics

Module No.: astro850

Course: Quasars and Microquasars

Course No.: astro856

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

Requirements for Participation:

Preparation:

Form of Testing and Examination:
Written or oral examination

Length of Course:
1 semester

Aims of the Course:
The phenomenon of quasars and their energy production shall be studied from the smallest (stellar binaries) to the largest (active galactic nuclei) scales

Contents of the Course:
Microquasars and Quasars; X-ray binaries; Accretion; Neutron stars; Black holes; X-ray observations; Spectral states; Radio observations; Doppler boosting; Energy losses; Magneto-hydrodynamic production of jets; Gamma-ray observations; Review of Microquasars; Quasi periodic oscillations (QPO)

Recommended Literature:
Literature references will be provided during the course