

**Modules:**

astro830 **Elective Advanced Lectures**  
 astro850 **Modern Astrophysics**

**Course:****Quasars and Microquasars**

Course No.: astro856

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:**

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