Quasars and Microquasars - astro856

Degree - M.Sc. in Astrophysics (PO von 2014)

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