

Module:	Elective Advanced Lectures: Modern Astrophysics
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Module No.: astro850

Course:	 Quasars and Microquasars
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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