### Module title
Contemporary Astrophysics

### Abbreviation
11-CAP-Int-201-m01

### Module coordinator
Managing Director of the Institute of Theoretical Physics and Astrophysics

### Module offered by
Faculty of Physics and Astronomy

### ECTS
6

### Method of grading
Numerical grade

### Only after succ. compl. of module(s)
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### Duration
1 semester

### Module level
Graduate

### Other prerequisites
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### Contents
- History of Astronomy
- Coordinates and Time Measurement
- The Solar System
- Exoplanets
- Astronomical Scales
- Telescopes and Detectors
- Stellar Structure and Atmospheres
- Stellar Evolution and their End Stages
- Interstellar Medium
- Molecular Clouds
- Structure of the Milky Way
- The Local Universe
- The Expanding Universe
- Galaxies
- Active Galactic Nuclei
- Large-Scale Structures
- Cosmology

### Intended learning outcomes
- The student is familiar with the modern astrophysical world view.
- He/She knows the methods and instruments of astrophysical research.
- He/She is able to plan and interpret his/her own observations.
- He/She is familiar with the physics and evolution of the most important astrophysical objects, e.g., stars and galaxies.

### Courses
- **V (3) + R (1)**
  - Module taught in: English

### Method of assessment
- **a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes).**
  - If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest.
  - Language of assessment: English

### Allocation of places
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### Additional information
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### Referred to in LPO I
(Examination regulations for teaching-degree programmes)

### Module appears in
- Master’s degree (1 major) Physics International (2020)