## Module description

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Cosmology</td>
<td>11-AKM-Int-201-m01</td>
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### Module coordinator
Managing Director of the Institute of Theoretical Physics and Astrophysics

### Module offered by
Faculty of Physics and Astronomy

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tbody>
<tr>
<td>6</td>
<td>numerical grade</td>
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### Duration
1 semester

#### Module level
graduate

#### Other prerequisites
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### Contents
- Expanding Space-Time
- Friedmannian Cosmology
- Basics of General Relativity
- The Early Universe
- Inflation
- Dark Matter
- Primordial Nucleosynthesis
- Cosmic Microwave Background
- Structure Formation
- Galaxies and Galaxy Clusters
- Intergalactic Medium
- Cosmological Parameters

### Intended learning outcomes
Basic knowledge of cosmology. Knowledge of the theoretical methods of cosmology and the ability to relate those to observations. Insight into current research topics and is able to work on scientific questions.

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

### Method of assessment
(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- 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
Assessment offered: In the semester in which the course is offered and in the subsequent semester

### Allocation of places
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### Additional information
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### Referred to in LPO I (examination regulations for teaching-degree programmes)
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### Module appears in
Master’s degree (1 major) Physics International (2020)

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