### Module title

**Introduction to Space Physics**

### Abbreviation

11-ASP-Int-201-m01

### Module coordinator

Managing Director of the Institute of Theoretical Physics and Astrophysics

### Module offered by

Faculty of Physics and Astronomy

### ECTS

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

<table>
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<tr>
<th>Module level</th>
<th>Other prerequisites</th>
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<td>1 semester</td>
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### Contents

1. Overview
2. Dynamics of charged particles in magnetic and electric fields
3. Elements of space physics
4. The sun and heliosphere
5. Acceleration and transport of energetic particles in the heliosphere
6. Instruments to measure energetic particles in extraterrestrial space

### Intended learning outcomes

Basic knowledge in space physics, in particular of the characterization of the dynamics of charged particles in space and the heliosphere. Knowledge of the relevant parameters, the theoretical concepts and the methods of their measurements.

### 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.

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

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)

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### Module appears in

- Master's degree (1 major) Physics International (2020)
- Master's degree (1 major) Quantum Engineering (2020)