Module title: Advanced Topics in Astrophysics

Abbreviation: 11-CSAM-161-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

Duration: 1 semester

Module level: graduate

Other prerequisites: Approval from examination committee required.

Contents:
In-depth study of particular current topics of Astrophysics. The concepts of Astrophysics which will be discussed include: Stellar structure, formation and development, radiation transport, gas dynamics, heating and cooling processes of the interstellar medium, astrochemistry, accretion and jets, galaxy formation or similar topics.

Intended learning outcomes:
The students have advanced knowledge of the subdisciplines of Astrophysics and are able to work on current scientific questions.

Courses:

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<th>Type</th>
<th>Number of weekly contact hours, language — if other than German</th>
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Method of assessment:

- a) written examination (approx. 90 to 120 minutes)
- b) oral examination of one candidate each (approx. 30 minutes)
- c) oral examination in groups (groups of 2, approx. 30 minutes per candidate)
- d) project report (approx. 8 to 10 pages)
- 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: German and/or English

Allocation of places:

Additional information:

Referred to in LPO I: (examination regulations for teaching-degree programmes)

Module appears in:

- Master's degree (1 major) Physics (2016)
- Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
- Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
- Module studies (Master) Physics (2019)
- Master's degree (1 major) Physics (2020)
- Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020)
- Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020)