**Module title**  
Statistical Physics - Exercises  

**Abbreviation**  
11-T-SA-152-m01

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

**Module offered by**  
Faculty of Physics and Astronomy

<table>
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<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tr>
<td>5</td>
<td>numerical grade</td>
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**Duration**  
1 semester

**Module level**  
undergraduate

**Other prerequisites**  
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**Contents**
Exercises in Statistical Physics and theoretical thermodynamics according to the content of 11 T-SEV content. Among others Principles of statistics, Statistical Physics, ideal systems, fundamental theorems, thermodynamic potentials, quantum statistics, Fermi and Bose gas, systems of interacting particles, approximation methods, Ising models, critical phenomena, etc.

**Intended learning outcomes**
The students are familiar with the mathematical methods of theoretical thermodynamics and Statistical Physics and are able to independently apply them to the description and solution of problems of Statistical Physics and to interpret the results in a physical manner.

**Courses**  
(type, number of weekly contact hours, language — if other than German)

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<th>Ü (2)</th>
<th>Module taught in: Ü: German or English</th>
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**Method of assessment**  
(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- written examination (approx. 120 minutes)
- Language of assessment: German and/or 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**
- Bachelor' degree (1 major) Physics (2015)
- Bachelor' degree (1 major) Nanostructure Technology (2015)
- Bachelor' degree (1 major) Mathematical Physics (2015)
- Bachelor' degree (1 major) Mathematical Physics (2016)
- Bachelor' degree (1 major) Physics (2020)
- Bachelor' degree (1 major) Nanostructure Technology (2020)
- Bachelor' degree (1 major) Mathematical Physics (2020)
- Bachelor' degree (1 major) Quantum Technology (2021)