

Honesty in science and good scientific practice

Scientific honesty and observance of the principles of good scientific practice are indispensable prerequisites for all scientific work, as well as high quality of research and teaching. They affect every area of academic activities and are binding for all stakeholders in study, teaching and research.

The legal basis is Section 3 (5) of the Law on Universities in Baden-Württemberg (Landeshochschulgesetz - LHG), on which the code of conduct to ensure honesty in science of the Albert-Ludwigs-Universität Freiburg [1] is based.

Implementation at the Institute of Physics:

- In lectures in the first semester, the principle is explained using examples.
- Supervisors (and managers of human resources) instruct new employees and students.
- A discussion on the subject takes place once a year for the entire institute.
- Lecturers and group leaders point out the possible sanction and scientific misconduct is appropriately dealt with by the responsible persons.
- In cases that suggest mediation, the Dean of Studies, the head of the institute or the ombudsperson at the university can be called.

Examples of guidelines to be observed (see also [2]):

- Scientists are responsible for ensuring that their own behavior complies with the standards of good scientific practice.
- Scientists at all career levels regularly check the specifics of proper code of conduct under their current working conditions.
- Research data and research results are clearly documented and saved.
- The quality of a scientific contribution does not depend on the journal in which it is published.

Catalog of behaviors that are considered scientific misconduct is listed, e.g., in Appendix §7 in [1] and Appendix of [3], in particular:

- I. Misrepresentation
 1. Inventing data
 2. Falsification of data, e.g.,
 - a) by selecting and rejecting unwanted results without disclosing them,
 - b) by manipulating a representation or illustration.
 3. Incorrect information in a report, a thesis, an application letter or a funding application (including incorrect information about the publication organ and publications in print).
- II. Infringement of intellectual property
 1. With respect to a copyrighted work created by another or material scientific knowledge, hypotheses, teachings or research approaches originating from another
 - a) unauthorized use under the presumption of authorship (plagiarism),
 - b) the exploitation of research approaches and ideas, in particular as experts (theft of ideas),
 - c) presumption or unfounded acceptance of scientific authorship or co-authorship,
 - d) the falsification of the content or,
 - e) unauthorized publication and unauthorized access to third parties as long as the work, knowledge, hypothesis, teaching or research approach has not yet been published;
 2. claiming the authorship or co-authorship of another without their consent.
- III. Impairment of research of others
The sabotage of research activity (including the damage, destruction or manipulation of experimental setups, devices, documents, hardware, software, chemicals or other things that another person needs to carry out an experiment).

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Members of the Institute of Physics

[1] Regulations of the University of Freiburg on Safeguarding Academic Integrity (2014).

[2] DFG Code of Conduct - Guidelines for Safeguarding Good Research Practice (2019).

[3] Verfahrensordnung bei Verdacht auf wissenschaftliches Fehlverhalten der Max-Planck-Gesellschaft (2000).

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