



# Authorship

**Academic authorship of journal articles, books, and other original works is a means by which academics communicate the results of their scholarly work, establish priority for their discoveries, and build their reputation among their peers.**

## Why authorship matters

- Gives credits, builds reputation and visibility in one's field
- Implies responsibility and accountability for published work
- Provides a primary basis for employers to evaluate academic personnel for employment, promotion, and tenure

## Who is an author?

The criteria for authorship may vary somewhat depending on the field and publication source. The most common ones are:

- Substantial contribution to the conception and design of the study, the acquisition of data, or the analysis and interpretation
- Drafting or providing critical revision of the article
- Providing final approval of the version to publish
- Agreement to be accountable for all aspects of the work

## Non-author contributors

Contributors who do not meet all authorship criteria should not be listed as authors, but they may and should be acknowledged.

Examples of contributors that do not qualify for authorship:

- A person whose sole role is the acquisition of funding for the project
- General supervisor of a research group who is not directly involved in the project
- A person who provides general administrative support
- A person who provides writing assistance, technical editing, language editing, or proofreading

## Non-author contributors

In some cases acknowledgment may explicitly or implicitly imply endorsement of the study and conclusions drawn by the acknowledged individuals. In such situations it is recommended to ask for acknowledgement permission from those individuals. That can also be requested by the editors.

## Falsified or misleading authorship

- Coercive authorship (more senior members of the team list their names as a lead author when they do not put much intellectual effort)
- A person is listed as an author out of respect, friendship, or to make a favor (honorary or guest authorship)
- Rolling authorship (the honor is granted on the basis of previous related research papers)
- Omitted authors (ghost authorship)

Many reputable journals explicitly list their guidelines for authorship to deter the authorship abuse.

# Complex situations and disputes of contribution and authorship

In modern research settings the issues of authorship may be quite complex. Some reasons for this are:

- There are numerous contributors
- Multiple institutions may be involved
- Senior members (e.g. professors or postdocs) provide assistance to junior members (e.g. graduate/undergraduate students)





## Order of authors

- There is no universal interdisciplinary standard for authorship order
- Even within the same field there may have been significant historical variations
- The order of authors may convey some message about the contribution or seniority of individual authors
- For junior members being the first/lead author on an important publication can lead to great distinction

## Common conventions for authorship order

- Many big collaborations or groups discuss the authorship guidelines early on in the project to ensure there are no problems later
- In modern physics literature (Western) the authors most commonly ordered according to their degree of involvement, with the most active contributors listed first
- The last author listed is often the one with a senior position that has provided insight, giving him or her more responsibility
- Large high-energy physics collaborations list authors in alphabetical order
- Alphabetic order is also common in mathematics, finance
- In some journals estimates of individual contributions may be explicitly listed in footnotes

# Plagiarism in academia

Plagiarism is a type of research misconduct that is defined as **The use of ideas, concepts, words, or structures without appropriately acknowledging the source to benefit in a setting where originality is expected**

In some severe cases plagiarism can be viewed as intellectual property theft

## Text similarities

- Small text similarities are ok and do not necessarily constitute intentional plagiarism (e.g. a five-word sentence may not be unique enough and can be born in the heads of many people)
- The use of definitions of terms may also introduce similarities
- Some borrowed sentences (but not paragraphs) in the introduction of a research paper are probably ok too.
- Large text similarities are not acceptable (in particular without proper citations) and are considered a misconduct
- Citing the source is an acknowledgement of and credit to other people's work.



## Proper reuse of someone else's text

For a large block written by someone else, you should use quotation marks and cite the original work, e.g.

Varga et al. [Phys. Rev. Lett. **80**, 1876 (1998)] state that “The binding mechanism of this second bound state is very special. The constituents are fermions, but in the decaying channel they form bosons (Ps atoms or excitons). The Pauli principle, however, forbids the odd partial waves between bosons so the biexcitons with  $L = 1$  and negative parity cannot decay into two excitons. A somewhat similar situation, that is a second bound state which cannot decay due to parity conservation, exists in the H<sub>2</sub> ion as well”

# Data plagiarism

- Plagiarizing data (tables, figures, etc) is not acceptable either
- Reusing someone else's figure generally requires a permission and a proper citation/acknowledgement



## Text Recycling (self-plagiarism)

- This is not plagiarism according to most definitions
- Text-recycling may be ok in some situations and be viewed negatively in others. It is really a grey zone.
- Note that publishing the exact same paper twice is not allowed by most journals, because science papers are expected to be original.

# Delayed negative consequences of plagiarism

## The Guttenberg scandal

Karl-Theodor zu Guttenberg, a rising star of German politics, was awarded a doctorate in law from the University of Bayreuth in 2007.

Served as the Secretary-General of the CSU from 2008 to 2009, as Federal Minister for Economics and Technology in 2009 and as Federal Minister of Defence from 2009 to 2011.

Had to resign from all political posts in March 2011 over a plagiarism scandal.

