

iDiv Code of Scientific Integrity

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1. Introduction

iDiv is an inspiring and challenging institution that fosters excellence in research and graduate teaching in a highly collaborative, dynamic, and international environment. We aim at having excellence not only in research and teaching, but in how we conduct all aspects of academic life.

This document aims at promoting ethical behavior and best practices, in order to avoid scientific misconduct and any form of bullying, harassment or discrimination. It applies to all members, students, employees and visitors (e.g. workshop participants) of iDiv and should be **provided to all at check-in**. We aim to empower everybody in iDiv with information about good practices on authorship (Section 2), responsibilities and duties of supervisors (Section 3), and outline a code of conduct on how we expect individuals to conduct themselves during their activities at iDiv or in representation of iDiv (Section 4). In addition, we also describe how to proceed when things go wrong (Section 5).

This document compiles information provided by iDiv's host institutions and funding organisations, the DFG¹, as well as information from iDiv itself. It does not replace binding regulations from those organizations (e.g. the DFG Guidelines for Safeguarding Good Scientific Practice; and their implementing documents at the hosting institutions), being only a complementary resource. This document is intended to trigger and foster open conversations on these topics at iDiv. It shall be discussed at the first meetings between a supervisor and PhD student, as a part of the yDiv PAC team meetings, and in the yearly appraisal meetings with all staff. It could also serve as a basis for annual discussions within your lab or for social meetings within iDiv.

This is a **living document** to be amended and adjusted in accordance with future experience and further developments at iDiv and in our society. Please contribute to it!² In addition, an annual survey should be carried out to evaluate the implementation of this document across iDiv.

¹ For more info on the DGF guidelines, check <https://wissenschaftliche-integritaet.de>

² Available for comments at

<https://docs.google.com/document/d/1gvf3fvKQH5hdDuYXdiD1DCYQ9kdeMqry-N7bnSAiX5w/edit?usp=sharing>

2. Authorship

In iDiv, scientific publications are often written by multiple authors. Authorship is a recognition of the work and intellectual contribution someone has put into the publication and the research leading to it. However, the responsibilities and the impact of authors listed in different positions in the authorship order and the author identified as the corresponding author differ. In particular, the impact of having first or last/corresponding authorships has gained importance for scientific careers. For this reason, authorships are a potential source of conflict in collaborative projects. One important source of conflict which may be specific for iDiv is that we are an interdisciplinary research institute. Different scientific disciplines have different traditions when it comes to acknowledging authorship. Another aspect that may lead to conflicts are cultural differences among international scientists and specific research groups.

Agreeing on authorship in a project

The first and most important advice to avoid conflicts on authorships is **to discuss it openly at an early stage of the project**. Preferably this should happen at the first time a project team gets together or when a PhD student starts the project. At such meetings, the expectations of the responsibilities taken by each author and author role (first, middle, last, corresponding) should be specified and agreed upon. It is important to recognize that not all collaborations lead to co-authorship, and that supporting colleagues with ideas and feedback should be encouraged independently of co-authorship. For iDiv research groups and sDiv, agreements on authorships could best be documented in a 'co-authorship charter' or agreement [example [MIE](#)]. Defining the roles of authors early on in a project or writing process, results in transparency and makes each author accountable for her or his role. In the course of the project, the topic of authorship should be re-discussed when needed, e.g. when new collaborators join the team or when one of the authors takes a different role than foreseen. In principle, the first and last author are responsible for the process of communication about author roles.

Protecting the interests of early career researchers and responsibilities of project leaders

When assigning author roles, particular attention should be given to early career scientists. iDiv wants to **encourage young researchers to lead publications** as (shared) first or last authors. iDiv will **eliminate honorary authorships** which are based on seniority or hierarchical position, rather than actual intellectual contribution to the project or the paper. **Last authors** need to have made a substantial contribution to the paper at multiple stages, providing continuous guidance and support to the work. The **corresponding author** is sometimes also

the investigator that provided overall guidance, but often is simply the author who is tasked with being the point of contact for the journal and taking care of the submission. Small contributions can be recognized in the acknowledgements instead of authorship. In summary, all authors must have made a concrete contribution to the manuscript, such as proposing the idea, generating data, data analyses, interpretation and discussion of results, or writing sections of the manuscript. In addition, all authors should be accountable for the content of the manuscript. It is the responsibility of the project leaders - mostly the first and last and/or corresponding authors - to clearly communicate the exact criteria, based on this document and the DFG Code of Conduct, that need to be met for co-authorship to each contributor *early on in the project*.

Author responsibilities towards open and reproducible science

iDiv aims to foster **open and reproducible science**. Open and reproducible science allows for other scientists to build on previous results and promotes equity in the access to scientific results around the world, an important aspect of iDiv's mission of contributing to the management of our planet's biodiversity. Two important aspects of this are open access publications and data and code sharing, which are increasingly required by funding agencies (e.g. DFG and European Commission).

iDiv strongly encourages the publication of results in **Open Access** journals (Gold Open Access). If that is not possible, authors should use other options of making papers publicly available, e.g. via preprints archives. Most journals allow for preprints to be made available publicly on the internet (i.e. Green Open Access).

Data and code used for a publication should be made available under open licenses and following the **FAIR (Findable, Accessible, Interoperable, Reusable)** principles in a suitable repository at the latest after publication of the manuscript. Commonly, the corresponding author is responsible for ensuring that data and code will be available after the manuscript has been published at least for ten years. In cases where the corresponding author is not the principal investigator of the project, the last author shares this responsibility with the corresponding author and should be credited accordingly. A similar responsibility for the principal investigator of experimental labs is to keep the lab books documenting all the research work for at least ten years after the project has ended. Like for authorship, project leaders need to make sure that **all data and code contributors are credited** appropriately, e.g. through citations or acknowledgements. The rules on data and code contribution have to be discussed along with authorship rules.

External resources

Authorship guidelines in professional societies, journals, funding agencies and networks

- Authorship in the DFG Guidelines for Safeguarding Good Scientific Practice (2019, **binding for research at iDiv**), https://www.dfg.de/download/pdf/foerderung/rechtliche_rahmenbedingungen/gute_wissenschaftliche_praxis/kodex_qwp_en.pdf
- DFG code-of-conduct in English (**binding for research at iDiv**): https://www.dfg.de/en/research_funding/principles_dfg_funding/good_scientific_practice/index.html
- Authorship Editorial policies, *British Ecological Society*, <https://besjournals.onlinelibrary.wiley.com/hub/editorial-policies>
- Authorship in the Code of Ethics of the Ecological Society of America (2020), <https://www.esa.org/about/code-of-ethics/>
- Authorship of NutNet Manuscripts, <https://nutnet.org/authorship>

Describing contributions in papers

- CRediT – Contributor Roles Taxonomy, <https://casrai.org/credit/>
- Who gets credit? Survey digs into the thorny question of authorship, *Nature* (2018), <https://www.nature.com/articles/d41586-018-05280-0#ref-CR1>

Advice on multi-authored papers, authorship order and on negotiating authorship

- How do you decide authorship order, *Dynamic Ecology Blog* (2013), <https://dynamicecology.wordpress.com/2013/03/13/how-do-you-decide-authorship-order/>
- Determining and negotiating authorship, *Psychological Science Agenda* (2015), <https://www.apa.org/science/about/psa/2015/06/determining-authorship>
- Ten simple rules for collaboratively writing a multi-authored paper, *PLOS Computational Biology* (2018), <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1006508>
- Strategies for effective collaborative manuscript development in interdisciplinary science teams, *Ecosphere* (2018), <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/ecs2.2206>

Analysis of authorship practices and research dynamics

- Author contributions to ecological publications: What does it mean to be an author in modern ecological research?, *PLOS One* (2017), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0179956>
- Last and corresponding authorship practices in ecology, *Ecology and Evolution* (2017), <https://onlinelibrary.wiley.com/doi/full/10.1002/ece3.3435>
- Large teams develop and small teams disrupt science and technology, *Nature* (2019), https://www.nature.com/articles/s41586-019-0941-9?wpisrc=nl_science&wpmm=1&wm=3292_9015

FAIR data and code resources

- A guide to reproducible code in ecology and evolution, BESA 2017, <https://www.britishecologicalsociety.org/wp-content/uploads/2017/12/guide-to-reproducible-code.pdf>
- The FAIR Guiding Principles for scientific data management and stewardship, <https://doi.org/10.1038/sdata.2016.18>
- EC note on Open Access to Scientific Publications and Open Research Data, https://ec.europa.eu/info/sites/info/files/research_and_innovation/strategy_on_research_and_innovation/documents/ec_rtd_background-note-open-access.pdf
- Course on reproducible science in R, https://nceas.github.io/sasap-training/materials/reproducible_research_in_r_fairbanks/

3. Supervision

Supervisees in iDiv include students, doctoral and postdoctoral researchers and technical and administrative staff. **Doctoral and postdoctoral researchers make substantial contributions to iDiv's** research as well as in communicating iDiv's research to the scientific community and to the public. In addition, **technical and administrative staff** are essential to the work and success of iDiv. iDiv aims at offering a supportive and pleasant working environment for all employees and researchers, including adequate supervision arrangements. iDiv follows the **recommendations for supervision of the German Research Foundation (DFG)**.

Communication between supervisees and supervisors

Open and clear communication is extremely important. In particular, mutual expectations should be expressed (e.g. frequency of supervision meetings) and responsibilities clearly communicated. Communication should always be **honest, respectful** and **with consideration of individual and cultural differences**. Supervisors should lead by example and create a culture of mutual respect and a healthy working environment. They should encourage and support all supervisees as their team members. Supervisors and supervisees agree that everyone needs free space and time in order to reflect, develop independently and regenerate from work. Communication should respect personal boundaries from both sides, avoiding non-work times such as weekends, holidays and in general non-work hours, although exceptions can occur and the supervisor/supervisee may jointly opt for an arrangement that better matches their joint preferences. Abusive use of supervision power is in clear violation of good scientific conduct and can also be illegal under Germany's Occupational Safety Act and other laws. This includes bullying and sustained hostile behaviour, such as ridiculing, threatening, backbiting and blaming. It also includes the misuse of seniority to encourage violations of research integrity, e.g. in the publication process.

Annual appraisal

A performance and appraisal interview should take place annually. For PhD students this can coincide or be synchronized with their annual PhD advisory committee (PAC) meeting. During this appointment, **supervisees receive useful individual and honest feedback** by the supervisor about his or her current work performance and progress, competencies and skills, development opportunities within the research group, goals and priorities. When the direct supervisor is not the group leader, it may be appropriate that both the group leader and the direct supervisor participate in the conversation. This conversation should also be an opportunity for **supervisors to receive feedback on their supervision**, including suggestions on how they can more effectively support the work of the supervisee. The group leaders are responsible for creating an atmosphere that allows

everybody to provide feedback on their supervisors without fearing retaliations. Supervisors should also provide guidance for the future career development of their PhD students' and postdocs' career paths in both academia and outside academia.

Doctoral researcher supervision

Each doctoral researcher should have **one primary supervisor**. In addition to the supervision by this supervisor, iDiv doctoral researchers have a **PhD advisory committee (PAC)** that assists them in their **research** as well as in all aspects of **career planning** and integration into the international scientific community. Individual members of the PAC other than the main supervisor can also be approached in cases of conflict with the supervisor. Both supervisors and doctoral researchers strive to successfully complete the doctoral process in a reasonable amount of time according to the specific requirements and conditions of the respective research field. Doctoral degrees are awarded by the respective faculties at the universities, in accordance with the doctoral regulations in force which may differ between faculties in the same university.

yDiv - iDiv's support unit for early-career researchers

All doctoral and postdoctoral researchers (co-)financed by iDiv (e.g. via Flexible Pool or a core group) become automatically part of [yDiv](#). yDiv is iDiv's support unit for early-career researchers from doctoral researchers to postdoctoral researchers and junior group leaders, offering support in academic and non-academic careers. Early-stage researchers supervised by iDiv members and not funded by iDiv have the option to enroll with yDiv as well.

Integrative research and knowledge exchange

Integrative research is essential for understanding and solving the biodiversity crisis and for promoting biodiversity science. iDiv supervisors therefore encourage and enable their doctoral and postdoctoral researchers to approach biodiversity science beyond their specialization. At iDiv, **early-career researchers should get to know different approaches**, investigation objects and methodologies of biodiversity research, e.g. by attending yDiv courses or seminar series talks, participating in sDiv working groups, and engaging in activities of different research groups (e.g. lab meetings). In addition, iDiv supervisors encourage their doctoral and postdoctoral researchers to participate in international conferences and to invite scientific guests to iDiv. Depending on the specific mandates of the funding sources and individual profiles, the supervisor empowers early-career researchers to develop their own scientific profile and respects their scientific autonomy.

Representation and participation of early career researchers in iDiv bodies

Doctoral and postdoctoral researchers are represented in different iDiv boards and committees, e.g. the **iDiv council** and the **yDiv board**. iDiv highly encourages their participation in academic self-administration to ensure that the specific needs

of early-career researchers can be adequately expressed and communicated within iDiv.

Support for supervisors

iDiv also commits to enhance skills on supervision and **strongly encourages all supervisors to participate in courses and other forms of supervision training**. iDiv considers this essential for the quality of the supervision.

External resources

Supervision guidelines in professional societies, and funding agencies

- Authorship section in the DFG Guidelines for Safeguarding Good Scientific Practice (2019),
https://www.dfg.de/download/pdf/foerderung/rechtliche_rahmenbedingungen/gute_wissenschaftliche_praxis/kodex_gwp_en.pdf

Guidelines for annual appraisal meetings at the universities:

- Martin Luther University Halle-Wittenberg (in German only):
<https://personal.verwaltung.uni-halle.de/service/personalentwicklung/service/smg/>
- Friedrich-Schiller University Jena:
<https://www.uni-jena.de/Mitarbeitergespr%C3%A4ch> and
<https://www.uni-jena.de/en/Mitarbeitergespr%C3%A4ch>
- Leipzig University (in German only):
<https://intranet.uni-leipzig.de/zentralverwaltung/personal/formulare/>

4. Code of Conduct

iDiv values the diversity of views, expertise, opinions, backgrounds, and experiences of employees and visitors. iDiv is committed to providing a safe, productive and welcoming environment for all. All iDiv members, employees, including scientific and non-scientific staff, students at all levels, interns, volunteers, service providers, and visitors, including workshop and conference participants, are expected to abide by this iDiv Code of Conduct.

This Code of Conduct applies to the iDiv building, and facilities of partner organizations where iDiv research is carried out, as well as any other facilities where activities associated with iDiv take place. This Code of Conduct also applies to field situations, which are special in many ways. Fieldwork often happens at remote sites, with new, unfamiliar, unknown or nonexistent local rules of conduct and no reporting mechanisms in place. There may be unfamiliar cultural norms or a foreign language, and long days with physically strenuous work and exhaustion. None of this exempts anyone from their responsibility to familiarize themselves with the new cultural norms and rules, ensure a safe and respectful work environment for everyone and follow this code of conduct.

Expected Behavior

- Follow the good practice principles outlined in this document regarding authorship and supervision
- Treat all your colleagues, including non-scientific staff, and workshop- and conference participants with kindness, respect and consideration, by valuing a diversity of views and opinions (including those you may not share)
- Communicate openly, with respect for your colleagues, by criticizing ideas rather than individuals.
- Refrain from demeaning, discriminatory, violent or harassing behavior and speech directed toward others.
- Be mindful of your surroundings and of your colleagues. Alert iDiv staff if you notice a dangerous situation or someone in distress. It is the duty of all to report unacceptable behavior.

Unacceptable Behavior

- Harassment, intimidation, or discrimination in any form is unacceptable behaviour. Examples of unacceptable behaviour include, but are not limited to:
 - Physical or verbal abuse of any participant
 - Unwelcome or offensive verbal comments or exclusionary behaviour related to: age, career stage, ethnic, social or national origin,

appearance or body size, gender identity and expression, individual lifestyle, marital status, physical or cognitive ability, citizenship, pregnancy status, membership in a national minority, education, socio-economic background, political affiliation, sexual orientation, skin color, or religion

- Unwanted physical contact
 - Unwanted sexual attention
 - Display of sexually explicit or discriminatory images
 - Deliberate intimidation, stalking, or following
 - Sustained disruption of talks, discussions or other events
 - Bullying behaviour
 - Retaliation for reporting unacceptable behaviour or conflicts regarding authorship or supervision
- Harassment includes speech or behaviour that is personally offensive. Behaviour that is acceptable to one person may not be acceptable to another, so be sensitive to varying thresholds from colleagues. Harassment intended in a joking manner still constitutes unacceptable behaviour.

External resources

Partner institutions code of conduct:

- Max Planck Gesellschaft, <https://www.mpg.de/14172230/code-of-conduct.pdf>
- Max Planck Gesellschaft Policy against harassment and violence, <https://www.mpg.de/11961177/policy-against-sexualized-discrimination-harassment-and-violence.pdf>

Codes of conduct and guidelines from funding agencies and other scientific bodies

- Guidelines for Safeguarding Good Research Practice: https://www.dfg.de/en/research_funding/principles_dfg_funding/good_scientific_practice
- European Code of Conduct for Research Integrity, <http://www.allea.org/wp-content/uploads/2017/03/ALLEA-European-Code-of-Conduct-for-Research-Integrity-2017-1.pdf>
- Other guidelines, https://www.dfg.de/en/research_funding/principles_dfg_funding/good_scientific_practice/international_standards/index.html
- Code of Conduct of the Ecological Society of America, <https://www.esa.org/events/code-of-conduct-for-esa-events/>
- Code of Conduct of the British Ecological Society, <https://www.britishecologicalsociety.org/events/n4fg/code-of-conduct/>
- Workshop code of conduct at University of Berkeley, <https://www.ml4science.org/code-of-conduct>

Other resources:

- AdvanceGeo Partnership resources on transform workplace climate, <https://serc.carleton.edu/advancegeo/index.html>
- Specific considerations regarding fieldwork, https://serc.carleton.edu/advancegeo/resources/field_work.html
- AGU Ethics & Equity Center, <https://ethicsandequitycenter.org/best-practices/ending-harassment/>

5. What to do when problems arise

In case of conflicts, there are several ways to find **support for mediation**. If you are in the core groups in Leipzig, the first point of contact would be one of the iDiv counselors³. You can also reach any of the members of the Speaker Board directly. They will hear your case, and help to find a solution. If desired, they can act as mediators. Furthermore, they can point you to the right persons at the institute that formally employs you. Each partner institution has their own Ombudsperson who will hear your case and provide advice. If you are a Flexpool-funded iDiv scientist at one of the partner institutions, please feel free to also approach our counselors for support. You are encouraged to inform one of the iDiv counselors as soon as you bring your complaint to a local ombudsperson.

Anyone requested to stop unacceptable behavior is expected to comply immediately.

Bystanders that observe unacceptable behavior have the **duty to report** it according to the guidelines below.

The sub-sections below outline sequential steps that may be taken by affected individuals in different categories to address issues linked to the iDiv Principles of Good Practice and the iDiv Code of Conduct.

iDiv employees

Encompasses scientific and non-scientific staff, including Flexpool doctoral and postdoctoral researchers stationed at iDiv member groups and guests.

Suggested steps for affected individuals

1. Talk to perpetrator (if possible)
2. Talk to your group leader (if possible)
3. Go to iDiv counselor or the Speakerboard
4. The counselor will decide together with you on further steps, including taking the problem to the Speaker Board or the ombudsperson of the host institute (for contact information see below)
5. In case of scientific misconduct, you can also contact the ombudsperson at your institution or the German Research Ombudsperson (for contact information see below). The ombudsperson will decide together with you on further steps.

Consequences

After due process, the ultimate consequence for iDiv members for serious or repeated breaches to the code of conduct is the temporary exclusion from iDiv

³ As of 2.1.2021, Nicole Sachmerda-Schulz (yDiv) and Marten Winter (sDiv).

funding (to be decided by the Speaker Board) or in extreme cases the loss of iDiv membership (to be decided by the Scientific Strategy Board). This does not exclude further actions taken by the member's institution, upon complaints of the affected individual or from the iDiv Speaker Board.

Participants of iDiv events (e.g. workshops and conferences)

Suggested steps for affected individuals

1. If possible, talk to the perpetrator
2. Talk to the PI chairing the event or an iDiv member participating in the event
3. Talk to sDiv Head (Marten Winter) or to the Speaker Board

Consequences

Misconduct at a workshop or conference can lead to immediate exclusion from the event. At workshops, this can be decided by the workshop PI's or, in case of sDiv workshops, by the sDiv Head. At conferences, this can be decided by the organization committee. Very serious misconduct can lead to a ban from future working groups, to be decided by the Speaker Board after due process.

Participants of yDiv courses

Suggested steps for affected individuals

1. Talk to perpetrator (if possible)
2. Talk to teacher (if possible)
3. Go to yDiv coordinator (Doctoral researchers: Nicole Sachmerda-Schulz, postdoctoral researchers: Ulrike Krumrey)

Consequences

Misconduct of a student at a yDiv course can lead to the eviction from the course, as decided by the teacher, or by the teacher in consultation with the yDiv coordinator. Misconduct of a teacher can lead to suspension of the course by the yDiv Board Chair. Very serious misconduct can lead to a ban from future courses for students or teachers, to be decided by the yDiv Board after due process.

External resources

University Leipzig

- Ombudsperson: <https://www.uni-leipzig.de/forschung/forschungsservice/ombudskommission/>
- Psychosocial Counselling: <https://www.studentenwerk-leipzig.de/en/counselling-social-issues/psychosocial-counselling>
- Equal opportunity counsellor: <http://www.gleichstellung.uni-leipzig.de/start/>

Friedrich-Schiller Universität Jena

- Ombudsperson: <https://www.jga.uni-jena.de/en/Professors/Ombudsman.html>
- Diversity office: https://www.uni-jena.de/en/diversity_office
- Equal opportunity counsellor: <https://www.uni-jena.de/gsb>
- Psychosocial counseling
<https://www.stw-thueringen.de/english/counseling/beratung.html>

Martin Luther University Halle-Wittenberg

- Ombudsperson: https://www.uni-halle.de/forschung/wiss_fehlverhalten/ombudsgremium/
- Equal opportunity officer: <https://www.gleichstellung.uni-halle.de/>
- Counseling services office (in English),
<https://diskriminierungsschutz.uni-halle.de/beratung/beratung-mlu/?lang=en>

UFZ

- Ombudspersons: <https://www.ufz.de/index.php?en=36448>
- Equal opportunity counselor: <https://www.ufz.de/index.php?en=36902>

What to do when you witness harassment

- University of Cambridge guidelines,
<https://www.breakingthesilence.cam.ac.uk/prevention-support/be-active-by-stander>