Appendix: ERIM Principles of co-authorship

Academic publications must give appropriate credit to those that contributed to the research, and authorship should be acknowledged. There are no universally agreed upon criteria that define when someone should become a co-author on a paper, and many aspects of authorship and publication are covered only by guidelines and unspoken custom. However, many international associations (e.g., the Academy of Management\(^7\), the American Psychological Association\(^8\), the International Committee of Medical Journal Editors\(^9\)) state that authorship credit should be based on specific conditions. ERIM adopts the following three conditions for authorship that should all be met:

1. Substantial contributions to a project. These could be contributions to conception of the idea and design of the research, contribution to acquisition of data, or analysis and interpretation of data.
2. Substantial contributions to writing the article or contributions to revising the article in meaningful ways for important intellectual content.
3. Final approval of the version to be published.

Authors should have no conflicts of interest in terms of their affiliations versus the content of the study, or conflicts should be disclosed to co-authors immediately.

Anyone listed as an author shares the responsibility for assuring that the studies and findings have been represented truthfully. Unless specific contributions by individual authors are explicitly indicated (as advocated by the US National Academy of Sciences\(^10\)), each author should be prepared to take full responsibility for the publication. In case data have been used, the authors share a responsibility in storing the data in such a way that later replications are feasible.

It is recommended to discuss authorship of a paper at an early stage of the research project, and to collectively determine the order of authorship. At this stage, it is also helpful to discuss the specific contribution that each author will deliver. It is recommend documenting the agreement on the contributions of the authors explicitly\(^11\).

Each author should have the opportunity to critically review drafts of the publication and to approve the final version (before submission and/or before final publication). The order of authorship does not necessarily correspond to the magnitudes of the individual contributions. Authors are expected to adhere to the norm of their field\(^12\). In most cases, authors are either listed alphabetically or by decreasing contribution. In some fields, first and last authors matter particularly.

\(^7\) http://aom.org/uploadedFiles/About_AOM/Governance/AOM_Code_of_Ethics.pdf
\(^8\) http://www.apa.org/ethics/code/
\(^10\) http://www.pnas.org/content/101/29/10495.full
\(^11\) See http://www.elsevier.com/connect/co-authors-gone-bad-how-to-avoid-publishing-conflicts for a sample agreement.
\(^12\) See, for example, NWO (2013), Onderzoek publicatieculturen NWO-MaGW.
The above-mentioned conditions imply that the following contributions by themselves are insufficient to qualify for co-authorship:

1. Being responsible for obtaining the funds for the research.
2. Giving a friendly review of a manuscript.
3. The contribution of materials (data, software, equipment, etc.) that are used in the research.
4. The training of (co-)authors in certain methods;
5. Directing an institution or a working unit in which a publication arises;
6. Being a supervisor, mentor or coach of a junior scholar or PhD student;
7. Being an expert in the area (so-called honorary authorships).

Contributions 1 to 6 can be properly recognized in an acknowledgement in the manuscript.

ERIM PhD students

Given that employers increasingly stress the abilities of their staff to be an independent researcher, issues of authorship are particularly crucial for researchers at an early stage of their career. For example, opportunities on the international job market or the chances of getting promotion or tenure, often critically depend upon whether or not someone acts as the lead author of an article, or whether he/she has a solo-authored publication.

The above provided criteria will in many cases give direction as to who is entitled to (co)authorship. Yet, there will be remaining “grey areas”, or situations in which it is not completely clear whether someone should be a coauthor on a paper. ERIM therefore wants to highlight the need for advisors and PhD students to think through and discuss issues relating to publication and authorship. For supervisors, it is relevant to consider the following recommendations from the Academy of Management:

- Realize that you are in a professional relationship with your PhD student in which your student is dependent on you (i.e., you have much more power in the relationship than the student). This means that you should take responsibility, and in unclear situations you should not simply assume or argue that you should be coauthor. The PhD student may disagree, but feel reluctant to express this opinion.

- PhD students are not hired simply to carry out your research. Supervising a PhD student means that you have a responsibility for successful completion of the project, and for the professional development of the PhD student. Taking your responsibility as a supervisor seriously does not necessarily entitle you to co-authorship.

- It is very helpful to explicitly discuss early on in the project with your PhD student what you expect in terms of co-authorship, and what exactly you will deliver in terms of contributions to the research.
In general, it is expected that PhD supervisors stimulate and support PhD students to publish their work and provide guidance in the process towards publication. Supervisors should give a PhD student the opportunity to act as the lead author or solo-author of a publication, when justified by the conditions above.