

Publication Ethics

Publication Ethics Statement for the conference proceedings of the International Group for the Psychology of Mathematics Education

In scientific publishing, it is necessary to follow ethical guidelines. Consequently, authors contributing to the Proceedings of the Conference of the International Group for the Psychology of Mathematics Education (PME) are required to adhere to the following guidelines.

1. Aims and scope

The International Group for the Psychology of Mathematics Education (IGPME), is a group of researchers, established in 1976 at the International Congress on Mathematics Education (ICME3) in Karlsruhe, Germany. The aims of the organization are:

- *to promote international contacts and exchange of scientific information in the field of mathematical education;*
- *to promote and stimulate interdisciplinary research in the aforesaid area; and*
- *to further a deeper and more correct understanding of the psychology and other aspects of teaching and learning mathematics and the implications thereof.*

IGPME welcomes all who are interested in how students learn mathematics, how teachers teach mathematics, and how mathematicians, teachers and students do mathematics.

2. Name of the publication and publishing schedule

The International Group for the Psychology of Mathematics Education (IGPME) publishes its conference proceedings once a year. The title of the proceedings is: Proceedings of the n-th Conference of the International Group for the Psychology of Mathematics Education and they are numbered according to the number of the conference. The ISSN of the proceedings is 0771-100X.

The types of papers and presentations that are published in conference proceedings currently are:

1. Plenary sessions

- *Plenary Lectures*
- *Plenary Panel*

2. Personal presentations

- *Research Reports (RR)*
- *Colloquiums (CO)*
- *Oral Communications (OC)*
- *Poster Presentations (PP)*

3. Group activities

- *Research Forums (RF)*
- *Working Groups (WG)*
- *Seminars (SE)*
- *National Presentation (NP)*

RR and CO publication types should be submitted no later than January 15 each conference year (exact deadlines may differ year to year and are based on the local timezone of the conference location). Submitted manuscripts undergo a double-blind peer review process, described below.

RF publication types are contributions to PME conferences and are subject to a review process. In order to allow the researchers to adequately prepare the RF, the deadline for proposals is November 1st in the year preceding the conference (exact deadlines may differ year to year and are based on the local timezone of the conference location). The International Programme Committee (IPC) pre-reviews the RF proposals. If necessary, the IPC provides feedback to the coordinators with the opportunity to revise the proposal until January 15th. During the first IPC meeting (approximately February), the IPC decides on the acceptance of the Research Forums. If accepted, the final contribution for the conference proceedings must be submitted by May 1st.

OC, PP, WG and SE publication types should be submitted no later than March 1 each conference year. Then, the International Program Committee (IPC) makes a decision about the acceptance of OC, PP, WG and SE on the basis of a review conducted by members of the IPC.

Authors of RR, CO, OC, PP, WG and SE receive notification of the acceptance or rejection of their proposals (RRs can be invited to be resubmitted as a PP or an OC, which are then reviewed and decided upon by the IPC).

Accepted contributions can be presented at the yearly conference on the condition that the presenting author has paid all necessary conference fees in due time.

3. Definition of Authorship, ownership and management of accepted publications, copyright and licensing

PME considers individuals who meet both of the following two criteria to be authors:

1. Made a significant intellectual contribution to the theoretical development, research design and/or the analysis and interpretation of data associated with the work contained in the paper.
2. Contributed to drafting the paper and/or revising it for intellectual content.

Contributors who meet both of the above criteria are expected to approve the final version of the paper as submitted to the conference organizer, including references.

Contributors who do not meet both of the above criteria may be included in the Acknowledgment section of the paper. Omitting an author who contributed to a paper or including a person who did not fulfill all of the above requirements is considered a breach of publishing ethics.

Ownership: For all contributions published in the PME proceedings, the copyright and licensing remains with the author.

Management: All proceedings of past annual PME conferences are open access and available for download from the Current and Past proceedings webpage in the IGPME website: <https://www.igpme.org/publications/current-proceedings/>

All papers are published through PME, annually, just before each conference is held.

4. Governing Body of PME: Board of Trustees

To run PME over the year, prepare and implement decisions made during the Annual General Meeting (AGM) and do most of the everyday work, PME has the president and an International Committee (IC) of 16 elected members, named “Board of Trustees” (BoT).

The work of the BoT involves work on four BoT Portfolio Groups:

- The Vice President Portfolio Group which is mainly responsible for PME scientific issues
- The Policy Portfolio Group which mainly deals with PME policy issues
- The Secretary Portfolio Group which mainly takes care of communication within PME
- The Treasurer Portfolio Group which is responsible for PME financial affairs

Positions for the president and the BoT rotate every four years. The current president and members for BoT can be found on the [PME International Committee](#) page. The members of the International Program Committee are selected every year from the BoT and from the Local Organising Committee of the next Conference, through a discussion process among the members of the BoT.

5. Editorial team

The yearly rotating International Program Committee (IPC) serves as the PME editorial team. All current IPC members' names and affiliations can be found in the proceedings of each yearly conference. The IPC consists of 4-5 members from the BoT (including the President of the IGPME) and 4-5 members from the Local Organizing Committee (LOC) of the conference (including the Chair of the conference).

PME upholds a strong dedication to maintaining editorial independence. Our editorial procedures are designed to uphold this commitment through safeguarding against competing interests such as external influences, conflicts of interest, or fears.

We maintain a policy of non-discrimination towards authors, editors, peer reviewers, and members irrespective of their personal characteristics or identities. PME is committed to fostering diversity, eliminating barriers to inclusion, and promoting equity throughout the publishing process.

Our editorial process consists of following:

Research Reports (RRs), including those which are part of a Colloquium (CO), undergo a double-blind peer review process. In particular, they are blindly reviewed by at least two anonymous PME members. Once RRs are blind reviewed by independent peer reviewers, our IPC (editorial team) discusses the blinded reviews for papers and makes a decision *about the acceptance of RRs on the basis of the peer review outcome*.

Proposals submitted for Research Forums (RF) are initially reviewed by the IPC who may consult with subject specialists as needed. The IPC then makes a decision on acceptance based on the submitted proposals and makes the decision to request an extended draft of the publication. Once the extended drafts are received, the IPC (editorial team) determines final acceptance decisions and revisions.

6. Revenue Sources & Author Fees

The IGPME is a charity entity. Revenue sources come from yearly conference registration fees and membership fees. Revenue from the membership and conference registration fees are used for a yearly IPC meeting, namely the pre-registration fee covers the travel cost of the first and second IPC meeting. Membership fees are used to pay the honorarium for the journal publication's administrator manager and other costs to run the organisation (including website, legal support, etc.).

Author fees for publishing research reports are covered under conference registration/membership fees. The fees allow for IGPME to publish proceedings as open access and make them available on the [PME Current & Past Proceedings](#) web page.

7. Research conduct

Original Research

When submitting a Research Report (RR) or Colloquium (CO) or Research Forum (RF) for publication, it must contain original research that has not been published or accepted for publication before and is not submitted for publication elsewhere while the author awaits a peer review decision. A submission elsewhere is possible only after a final decision on the RR/CO/RF by PME has been taken.

PME recognizes that research often follows an evolutionary publishing process. For example, research may be published first as a conference paper with preliminary findings, and then as a journal article with fully developed research and conclusions. PME approves this process provided that:

1. The paper undergoes standard peer review every time it is submitted to a conference or journal.
2. The later version contains further substantial results and scientific insights compared to the earlier version.
3. The later version cites the earlier version and clearly indicates how the two versions differ.

Proper Citation Practices

Authors should always cite their sources. Citation is required in several instances. The following guidelines should thus be followed:

- Direct quotation: Place verbatim text from another source in quotation marks. Indent text for longer quotes. Include a citation to the original source.
- Paraphrase or summary: Include a citation when restating or summarising information from another source, including ideas, processes, arguments, or conclusions.
- Data, research results, information, graphics, or tables: Cite the original source when referring to, adapting, or reusing any information from another source.

Note that the same rules apply to the authors' own previously published work. When in doubt, include a citation.

Inappropriate Use of Citations

Citing an irrelevant source for the purpose of artificially inflating citation metrics is considered a breach of ethics. Only cite relevant sources that legitimately contribute to one's paper according to the criteria outlined above.

Avoid Plagiarism and Self-Plagiarism

PME defines plagiarism as the use of another's ideas, processes, results, images or words without explicitly acknowledging the original author and source. Self-plagiarism is defined as the presentation of one's own, previously published ideas, processes, results, images, or words without explicitly acknowledging the original source.

Plagiarism and self-plagiarism in any form is unacceptable and is considered a serious breach of professional conduct, with potentially severe ethical and legal consequences. Authors are responsible for avoiding plagiarism and self-plagiarism by following proper citation practices noted above.

Report Data Accurately

Authors are expected to refrain from:

- Fabrication: Inventing data or results.
- Falsification: Manipulating research materials, equipment, or processes, or changing or omitting data or results.
- Image manipulation: Excessive or inappropriate adjustment of an image that alters the scientific meaning of the image.

Corrections, Clarifications, Retractions, and Apologies

PME is aware that authors can make involuntary mistakes in writing their respective papers. PME encourages authors to timely notify the editors of the proceedings about them. In case a correction, clarification, retraction, or apology is needed, the proceedings of the next conference will contain a section dedicated to this kind of information.

Discovery, investigation and corrective action of research and publication misconduct¹

The Board of Trustees (BoT) handles the investigation and corrective action of research and publication misconduct.

I. Discovering possible misconduct

The BoT may learn about incidences of possible research or publication misconduct, either before or after publication of a work including during the review process, by receipt of a direct communication alleging misconduct, or discovery in the course of internal review and preparation. Readers or authors who report allegations of misconduct to the BoT should provide as much detail as possible, including copies of papers or documentation, known background information, etc. Anonymous allegations may not be considered, all measures to ensure confidentiality will be taken if necessary. Unsubstantiated or frivolous complaints will not be considered.

II. Basic principles of the investigation of misconduct

If the BoT learns that an author may have acted improperly, which may include but is not limited to any of the circumstances defined below, the BoT shall initiate an investigation of the alleged misconduct. To initiate the investigation, the BoT will recommend the membership of a committee for handling the misconduct, which is composed of members of the BoT, selected depending on the publication(s) involved and the nature of the allegation.

- All inquiries will be handled promptly and fairly.
- All parties connected to the allegation will be given the opportunity to respond.
- Appropriate confidentiality will be maintained.

III. Investigative process

The investigative process depends on the type of allegation and how it is discovered.

Various information gathering and review steps may be taken. In such cases, it may be necessary to disclose specific details of the matter to other parties. In all cases, every effort will be made to keep details of the investigation confidential to those involved and those with a need to know.

In all cases, the concerned parties will be informed of the allegation and given an opportunity to respond within 14 days. If no response is received within that time, a decision may be rendered based on known information. Additional steps may be taken at the discretion of the investigating committee.

The following sections give general guidelines related to an investigation of some types of misconduct. Each case is unique and therefore may require a unique approach, as determined by the investigating committee.

Plagiarism: The IGPME defines plagiarism as the reuse of someone else's prior ideas, processes, results, or words without explicit attribution of the original author and source. Unauthorized use of another researcher's unpublished data or findings without permission is considered to be a form of plagiarism even if the source is attributed. IGPME considers plagiarism in any form, at any level, to be unacceptable and a serious breach of professional conduct.

¹ IGPME acknowledges Photo-Optical Instrumentation Engineers (SPIE) *permissions to use portions of their guidelines for ethical publishing of PME.*

In cases alleging plagiarism, the investigating committee will obtain source documents and testimony and determine the validity of the allegation and extent of plagiarism. There are varying degrees of plagiarism warranting different consequences and corrective action, listed below from most to least serious:

- a. Verbatim or nearly verbatim copying or translation of a full paper(s), or the verbatim or nearly verbatim copying or translation of a significant portion(s) of another paper(s).
- b. Disclosing unpublished data or findings without permission, even if attributed.
- c. Uncredited verbatim or nearly verbatim copying or translation of individual elements of another paper(s).
- d. Uncredited paraphrasing of pages or paragraphs from another paper(s).
- e. Credited verbatim copying or translation of a major portion of a paper without clear delineation (e.g., quotes or indents)

The degree of corrective action will be commensurate with the degree of plagiarism.

Disputes about authorship: The IGPME considers it the professional responsibility of all authors to ensure that the authorship of submitted papers properly reflects the contributions and consent of all authors. Proper authorship representation is generally a matter for the involved parties to resolve.

The investigating committee will encourage the concerned parties to resolve the dispute themselves. If the matter is not resolved in this way, the investigating committee will evaluate the claim to determine whether the matter is within or outside IGPME's purview and an appropriate course of inquiry and investigative action.

Duplicate submission and publication: The IGPME Publication ethics state that when submitting research for publication it must contain original research that has not been published or accepted for publication before and is not submitted for publication elsewhere while you await a decision. A submission elsewhere is possible only after a final decision by PME has been taken. Duplicate submission abuses the resources of all affected journals, including the valuable time of editors, reviewers, and staff, and is unprofessional and unacceptable. Duplicate publication in more than one peer-reviewed journal or proceedings prior to a submission is a serious breach of professional conduct with potentially severe ethical and legal consequences.

If duplicate submission is suspected or discovered at any time between submission and publication of a paper, the investigating committee will attempt to contact the other publication(s) to which the paper has been submitted to verify the occurrence of duplicate submission and to inform the editor of the other journal(s). If duplicate submission is confirmed, the paper will be immediately rejected. Additional sanctions may be warranted. An attempt will be made to coordinate corrective actions with the editor(s) of the other publication(s). If duplicate publication in peer-reviewed journals and/or proceedings is suspected, the investigating committee will confirm this by assessing the similarity and determining the paper's publication history. An attempt will be made to coordinate corrective actions with the editor(s) of the other publication(s).

Fabrication or misrepresentation of data or results: Fabrication of data or selective reporting of data with the intent to mislead or deceive is an egregious departure from the expected norms of

scientific conduct, as is the theft of data or research results from others. IGPME considers any incidence of fabrication or misrepresentation to be an extremely serious breach of professional conduct, with potentially severe ethical and legal consequences.

Investigations of this type of alleged or suspected misconduct require significant expertise and due diligence and also may have serious legal implications in addition to scientific implications. The investigation will always involve the President of the IGPME and may result in legal action.

IV. Consequences and Corrective Actions

If a finding of misconduct is determined, the BoT shall initiate corrective and/or disciplinary actions. The investigating committee will notify the individual(s) that corrective and/or disciplinary actions are being reviewed by the BoT. The named individual(s) shall be given the opportunity to respond within 14 days to the recommended corrective and/or disciplinary actions. There are several possible corrective and/or disciplinary actions. Depending on the degree of misconduct, one or all may be applied:

- Notice of violation in the appropriate publication.
- Publication of an erratum.
- Rejection and return of papers in review and publication queues.
- Prohibition from publishing in the specific publication or any IGPME publication for a period of time commensurate with the severity of misconduct and prior history of the author(s).
- Prohibition from other forms of participation with IGPME.
- Repeat offenders subject to increased penalty.

No later than 60 days after notifying the individual(s) named in the recommendation, the BoT will issue a final determination of corrective and/or disciplinary action(s) to be taken.

8. Archiving Published Content from PME Proceedings

Conference proceedings are published and archived on the website annually and can be accessed on the IGPME website. Backups are completed on an ongoing basis through our website and a secure cloud account.

In the event that PME were to no longer exist as a yearly publication journal all archived publications will be moved to and networked within the International Commission on Mathematical Instruction (ICMI).

9. Advertising & Direct Marketing

PME does not allow any advertising on our online academic platform or proceedings publications.

PME does not take part in any direct marketing activities including solicitation of RRs.