



IUPAP Working Group on Ethics (WG18)

Progress report

Ana María Cetto, WG18 Chair
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Background

- The 30th IUPAP General Assembly approved the creation of the Working Group on Ethics (WG18), with the following mission:
- To survey international ethics standards across societies, journals, and funding agencies, including hiring practices.
- To consider these accumulated data to develop a set of international ethics standards.
- WG18 is expected to report on progress at the meeting of IUPAP WG reports in October 2023, and to present a full report at the GA in 2024.
- The online GA of 2023 would be the occasion to approve a change of mission of the WG, if need be.



Previous IUPAP decisions

<https://iupap.org/strategic-plan/ethics-and-science-integrity/>

June 2022

- ▶ Guidelines have been established to address sexual harassment during IUPAP sponsored conferences and new regulations have been added to make decisions on awards.
- ▶ The [Waterloo Charter for Gender Inclusion and Diversity in Physics](#) also entails a list of good practice recommendations that are directly related to ethics and science integrity.
- ▶ Besides establishing rules of conduct for individual scientists, there are problems concerning undesirable behaviors by other players, e.g. solicitation to contribute to predatory journals and conferences.
- ▶ The IUPAP will take a lead in seriously combatting such predatory and/or fake practices in physics and applied physics.



Connection with other IUPAP entities

- ▶ This mission would first be applied to ethics concerning traditional scientific misconduct, including plagiarism, misuse of public funds, fabrication or misrepresentation of data, and accuracy in self representation.
- ▶ Later, in collaboration with WG5 (Women in Physics), the mission would include ethical standards to prevent and establish lines of actions in cases of harassment and sexual misconduct.
- ▶ With the contribution of members of the Affiliated Commission on the History and Philosophy of Physics (AC6), IUPAP foresees to define a set of guidelines that will help promote scientific and ethical standards and address ethical issues of great current concern.

The Working Group

With the support of Silvina Ponce, IUPAP president designate, and Laura Greene, Vice-President at Large with responsibility for Outreach and Ethics,

in November 2022 a small, geopolitically and culturally representative group of academics was formed, composed of:

- ▶ Prof. Regina Maphanga, CSIR, South Africa
- ▶ Prof. Maria Rentetzi, chair for Science, Technology and Gender Studies, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany
- ▶ Prof. Abdullah Shams Bin Tariq , Department of Physics, University of Rajshahi, and Global Young Academy, Bangladesh
- ▶ Prof. Marshall Thomsen, Physics and Astronomy Department, Eastern Michigan University, and Online Ethics Center, University of Virginia
- ▶ Prof. Ana María Cetto, Instituto de Física, UNAM, and president of the Mexican Physical Society 2021-2023 (chair)
- ▶ Ex-officio member: Prof. Silvina Ponce Dawson, Physics Department, University of Buenos Aires, Argentina, and IUPAP president designate



The process

WG18 agreed to issue a call for applications for a person to be hired under the project:

Survey of international ethics standards

with funding from IUPAP administered by the Mexican Physical Society.

Task: to conduct a bibliographical survey and comparative analysis of ethics standards of international, regional and major national scientific organizations and funding agencies.

Aim: to identify a set of standards for IUPAP's own activities, which at the same time can be a source of inspiration for the physics community at large.

The methodology

- As a result of the selection process, Montserrat Contreras, with a University degree in Physics and a PhD in Education, was hired for a period of six months.
- Montserrat presented monthly progress reports in the form of successive drafts of a document with the findings of her bibliographic survey, under the title:

Ethics in Physics: review

- WG18 provided feedback on the draft document, both via email and through the working group's regular online meetings.

Ethics in Physics: review

Final draft, Montserrat Contreras September 2023

Outline:

1. INTRODUCTION
2. RESEARCH ISSUES
 1. Ethical issues in funding agencies
 2. Ethical issues in publishing
 3. Predatory journals and Open Science
3. PHYSICISTS INTERACTING WITHIN THE SCIENTIFIC COMMUNITY
 1. Ethical issues in research centers and universities
 2. Ethical Issues in Scientific Organizations and Associations
 3. Scientific Awards
4. PHYSICISTS INTERACTING WITH THE REST OF SOCIETY
 1. Professional ethical issues
 2. Science communication for all audiences
 3. Ethical Decisions in Choosing a Research Area
 4. UNESCO, Sustainability Policy
 5. Political and consultant sphere

5. BASIC PRINCIPLES FOR THE PROMOTION OF GOOD PRACTICES

1. Promote good practices at all levels, students, scholarship holders, teachers, researchers, etc.
2. Continually improve the level of inclusiveness, equity, and respect in the workplace
3. Consider the social implications of the research topics
4. Promote disclosure of funding sources in written and oral presentations
5. Support open, fast, and reliable publication systems by choosing to use them for publication and by volunteering peer-review services
6. Promote ethics in physics education through courses, seminars, and mentoring
7. Develop ways and tools that allow the inclusion of interested members in the policy environment
8. Follow practices that ensure research is carefully carried out and honestly reported
9. Promote professional advancement that is based on the entire body of work of a scientist rather than superficial measures such as the number of publications
10. Seek procedures to bring advances and research closer to society in general
11. Promote workplace policies that include clearly defined procedures for reporting and investigating allegations of unethical behavior in a way that treats all parties with respect.
12. Establish clear penalties for violating ethical standards.

6. REFERENCES (to be completed)



Additional WG18 considerations

- Ethical issues evolve and new conflicts arise as a result of emerging technologies (e.g. AI, use of personal data, new communication tools), global challenges (e.g. climate change, loss of biodiversity), the spread of the malicious practices (e.g. predatory publishing), growing inequities, social distress, changing geopolitical landscapes, etc. --- which add to persistent issues (e.g. discrimination)
 - Ethical standards cannot be carved in stone but must be critically reviewed and kept up to date.
- Ethical issues are context- and culture- specific to varying degrees
 - International ethical standards must take into account the diversity of contexts.

We welcome feedback from IUPAP members!