



# Physics Competitions

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Front Page: Participants of the International Physics Olympiad 2013, enjoying a reception at the Town Hall of Copenhagen/Denmark (picture taken by Stefan Petersen / Germany)

The authors are responsible for all figures used in the articles.

# Executive Committee

HELMUTH MAYR — President

Austria / retired physics and physics didactics teacher, Vienna

Federal Coordinator of the Austrian Physics Olympiad

[helmuth.mayr@chello.at](mailto:helmuth.mayr@chello.at)

HENDRA KWEE — Vice-President

Indonesia / General secretary of APhO, Surya Institute

[hendrakwee@gmail.com](mailto:hendrakwee@gmail.com)

GUNNAR FRIEGE — Vice-President

Germany / Institute of Mathematics and Physics Education, Leibniz University Hanover

Welfengarten 1; D-30167 Hannover

[friege@idmp.uni-hannover.de](mailto:friege@idmp.uni-hannover.de)

STEFAN PETERSEN — Secretary

Germany / Leibniz Institute for Science and Mathematics Education at the University of Kiel

Olshausenstraße 62; D-24118 Kiel

[petersen@ipn.uni-kiel.de](mailto:petersen@ipn.uni-kiel.de)

INGIBJÖRG HARALDSDOTTIR — Treasurer

Iceland / Kopavogur Gymnasium, Digranesvegi, IS-200 Kopavogur

[inghar@centrum.is](mailto:inghar@centrum.is)

ANDRZEJ KOTLICKI — Member

Canada / University of British Columbia, Department of Physics and Astronomy

6224 Agricultural Road, Vancouver B.C., Canada V6T 1Z1

[kotlicki@physics.ubc.ca](mailto:kotlicki@physics.ubc.ca)

PAUL PSHENICHKAL — Member

Ukraine / Representative of ICYS

[ppshenichka@gmail.com](mailto:ppshenichka@gmail.com)

NATALYA KAZACHKOVA — Member

Ukraine

[nkazach@yahoo.com](mailto:nkazach@yahoo.com)

---

# Awards Committee

JAN MOSTOWSKI - Chairman  
Poland / Polish Academy of Science, Warszawa  
[mostowski.jan@gmail.com](mailto:mostowski.jan@gmail.com)

MASNO GINTING  
Indonesia / Komplek Puspiptek Blok II H no. 13Tangerang Selatan-Banten, 15310  
[masno.ginting@gmail.com](mailto:masno.ginting@gmail.com)

ANDREI LAVRINENKO  
Denmark / Technical University of Denmark, DK-2800 Lyngby  
[alav@fotonik.dtu.dk](mailto:alav@fotonik.dtu.dk)

JUAN LEON  
Spain / IFF/CSIC, Serrano 113-B, ES-28006 Madrid, <http://quinfog.iff.csic.es>  
[juan.leon@csic.es](mailto:juan.leon@csic.es)

MONIKA RAHARTI  
Indonesia / Surya Institute  
[monika.raharti@gmail.com](mailto:monika.raharti@gmail.com)

—

# Advisory Board

GIULIANA CAVAGGIONI  
Italy / Italian Association for the Teaching of Physics  
[giulcav@libero.it](mailto:giulcav@libero.it)

ANDREI LAVRINENKO  
Denmark / Technical University of Denmark, DK-2800 Lyngby  
[alav@fotonik.dtu.dk](mailto:alav@fotonik.dtu.dk)

ANDRZEJ NADOLNY  
Poland / Polish Academy of Science, Warszawa  
[nadola@ifpan.edu.pl](mailto:nadola@ifpan.edu.pl)

LEOPOLD MATHELITSCH  
Austria / University of Graz  
[leopold.mathelitsch@uni-graz.at](mailto:leopold.mathelitsch@uni-graz.at)

—

# Regional Representatives

Dr. Alan Alliosn / Australia  
Mr. Michael A. Cotter / Ireland  
Dr. Gagik V. Grigoryan / Armenia  
Prof. MSc. Ozimar Pereira / Brazil

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# Editor-in-Chief

HELMUTH MAYR  
Austria / retired physics and physics didactics teacher, Vienna  
Federal Coordinator of the Austrian Physics Olympiad  
[helmuth.mayr@chello.at](mailto:helmuth.mayr@chello.at)

---

# Editorial Board

HELMUTH MAYR  
Austria / retired physics and physics didactics teacher, Vienna  
Federal Coordinator of the Austrian Physics Olympiad  
[helmuth.mayr@chello.at](mailto:helmuth.mayr@chello.at)

GUNNAR FRIEGE  
Germany / Institute of Mathematics and Physics Education, Leibniz University  
Hanover, Welfengarten 1; D-30167 Hannover  
[friege@idmp.uni-hannover.de](mailto:friege@idmp.uni-hannover.de)

STEFAN PETERSEN  
Germany / Leibniz Institute for Science and Mathematics Education at the  
University of Kiel  
Olshausenstraße 62; D-24118 Kiel  
[petersen@ipn.uni-kiel.de](mailto:petersen@ipn.uni-kiel.de)

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# Aims of the Federation

- (1) To promote excellence in, and research associated with, physics education through the use of school physics competitions;
  - (2) To promote meetings and conferences where persons interested in physics contests can exchange and develop ideas of use in their countries;
  - (3) To provide opportunities for the exchanging of information for physics education through published material, notably through the Journal of the Federation;
  - (4) To recognize through the WFPPhC Awards system persons who have made notable contributions to physics education through physical challenge around the world;
  - (5) To organize assistance provided by countries with developed system for competitions for countries attempting to develop competitions;
  - (6) To promote physics and to encourage young physicists.
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# Editorial

Dear Readers,

This is the third Journal you can read online on our home page. As you can see, it is a double edition. I am very sorry that we have not been in a position to publish two single editions in 2013 and we have to apologise about that. We promise to go back to the normal rhythm of publication in future.

At the beginning you will find a report on the WFPhC-Award-2012, given to Maija Ahtee from Finland, for her outstanding work in physics education in general and her work for the physics competitions in detail.

Dear Maija, we will take your work as an example !

Niels Hartling, president of the International Physics Olympiad-2013, wrote an article about this great event, also giving an insight in the occurrences “behind the scene”.

Claudia Resch is the Executive Manager of the Austrian Research and Support Center for the Gifted and Talented. They made an investigation about the efficiency of the training for the Olympiads in physics, chemistry, mathematics and philosophy of Austrian teachers. It might be that some of these results will be representative in general.

“Much physics – little effort” was the topic of an experimental event during the WFPhC-Congress-2012 in the Netherlands. The participants worked out three experiments being very useful for the training of students for Olympiads.

There is an international Olympiad in robotics, too, having to do a lot with physics. You can read a description of this event, written by the trainer. One of the participating students wrote an article about a special aspect of robotics. The students were very successful and we would like to congratulate them !

A good guidance for students to make them interested in different competitions can be done by teaching them the use of research. As good-practice-examples, successfully done in Hungary, you can find an article about the reaction of sunlight on leaves with drops on them, about “green cars”, details about luminescence in nature, something about the climate change and an analysis of students’ misconcepts in mechanics.

I truly hope you can enjoy this Journal and all its interesting points.

Vienna, November 2013



(Helmuth Mayr)