

AIP PHYSICS EDUCATION GROUP - ANNUAL REPORT 2003

The Physics Education Group has since its inception in 1998, largely focused on the AIP Congress activities. In 2003, a non-congress year, some effort has been directed in a national project on university physics (see item below). In the absence of an annual meeting, I have taken the opportunity to place an open-ended discussion item at the start of this report.

Discussion Item – Terms of Reference and Relationship with other AIP entities.

A draft Terms of Reference for the Physics Education Group was produced in December 2000 by the AIP National Education Convenor. It listed an admirable and ambitious set of outcomes, such as we may dream of if AIP had the resources and people and structures (say, of the IOP). As it is, the list includes responsibilities which are currently handled by other groups or individuals within AIP, and which are beyond the capabilities of PEG as it is. Two comments may be in order.

First, we can recognize the nature of the AIP Physics Education Group as it is now, as primarily a network rather than a taskforce. Its membership is largely drawn from those with an interest in physics education research, PE innovation, the secondary-tertiary interface, and the promotion of physics particularly at secondary level.

Second, Physics education is core business for the AIP as a whole, with involvement on many fronts, including state branches, state education sub-committees, the AIP Youth lectures. It undoubtedly benefit the AIP to consider the priority areas for physics education in Australia and ensure that people and resources are focused in these areas. Having task-groups on these priorities may also assist in identifying the many stakeholders rather than trying to develop committee structures.

The PEG-based group conducting the national project on tertiary physics is one example of a useful task-force. Perhaps another possible area is the discussion of a national secondary physics curriculum.

The AIP Prize for Excellence in University Physics Education

Terms of reference developed in 2002 were cast into a format similar to the Walsh Medal, and accepted at the February 2003 AIP Council. Nominations will go to the Hon Secretary (at least) four months prior to the 2005 Congress; the AIP Executive has responsibility for the selection panel.

AIP Congress 2005

David Low is the PEG Program Coordinator (nominated by the 2002 PEG meeting) and has been working on the program.

AUTC Project – Learning Outcomes and Curriculum Development in Physics

In February 2003 the Australian Universities Teaching Committee announced a project to consider various aspects of tertiary physics in Australia. Members of the AIP PEG formed a project team which was eventually selected to carry out the project. The project will be particularly interested in the various ways in which physics teaching and learning has responded to changes, including new multidisciplinary areas, new technologies the changing nature of the student body and of student expectations, employment destinations and requirements, and the contribution of tertiary physics academics to teacher-training.

The project has data-gathering and analysis (Stage 1) in 2004, and subject to satisfactory progress, will submit a proposal for dissemination in Stage 2 (2005) of successful ('best') practices. The team has members from physics teaching departments of 13 universities, expert advisors with experience in special areas such as employment, multidisciplinary and links. Details of the Project can be seen www.physics.usyd.edu.au/super/AUTC/autc

David Mills,
Convenor

PEG Committee as at July 2002 AIP Congress.

Convenor: David Mills

Deputy Convenors: Michelle Livett and Mario Zadnik

Secretary /Treasurer: David Low

UniServe Science Rep: Ian Johnston

AIP Education Convenor: Dan O'Keeffe

AIP Executive Rep: Moira Welch

State Reps: Manjula Sharma (NSW), Elizabeth Chelkowska (Tas), David Low(ACT),

Mario Zadnik (WA), Judith Pollard (SA), David Mills (Vic), Steve Shanahan (NT),

Anton Rayner (QLD)

Immediate Past Convenor: Peter Logan