

# Report from the SAIP Conference Committee - 2004

## 1. Background

At its meeting in October 2003 the SAIP Council set up a committee to look into the possibility of reorganizing the annual conferences with a view to responding to various concerns, raised by the membership, the Transformation Committee and/or Council themselves. This document briefly describes the deliberations of the committee, starting with an outline of the perceived problems and ending with a list of specific recommendations for future conferences.

The committee comprised the following people:

Nithaya Chetty, KwaZulu-Natal University

Hendrik Geyer, Stellenbosch University

Harm Moraal, North West University

Patricia Whitelock, SAAO (chair)

with input from Phil Anagnostaras (Element Six (Pty) Ltd).

Members of SAIP were invited, via the newsletter, to provide input into the process; the only response was from Andrew Leitch (UPE) whose suggestions are taken into account here. The IoP were also asked to provide input and Sue Freyer, who leads their business and industry programme, described recent UK efforts to bring physicists in industry into closer contact with their colleagues in academia.

## 2. Current Challenges

The following issues were discussed by the committee:

1. Involvement of non academic, particularly industrial, physicists;
2. A greater level of scientific organization;
3. Publication of the proceedings;
4. Increasing the time for discussions;
5. Attendance and involvement by senior academics;
6. The desirability of fewer parallel sessions;
7. The difficulties of hosting the conference, particularly by a single university.

The nature of the perceived problem in items 1 and 2 is elaborated on below, the others are self explanatory.

### 1. Involvement of non-academic physicists

The annual conference, as currently organized, is an academic exercise with (largely) university physicists talking to each other - it would be very desirable to involve physicists in industry and commerce and use the conference to encourage "conversation" between academic and industrial physicists. This has various facets:

(a) Council would like to see SAIP supporting physicists much more broadly than it is at present, particularly those outside of the academic world;

(b) it could give students some real insight on the range of jobs available to them, and students form an increasing fraction of the delegates;

(c) it will provide opportunities for collaborations between industry and academia;

(d) it should give those employing physicists an opportunity to provide critical input on the skills and knowledge they would like to see in their future employees;

So, in rethinking the conferences, and other aspects of SAIP's activity, we must ask the following questions:

How do we make the conferences attractive to non-academic physicists?

How do we encourage/facilitate interactions between the "academic" and the "industrial/commercial"?

We note that these questions are not simple and that physicists in other countries are also searching for answers, to date with limited success.

The inputs from Sue Fryer and Phil Anagnostaras suggested that good networking opportunities were vital, but that these must be within an interesting context, e.g. a plenary lecture by a top rate international physicist on recent research. Time constraints are such that we will only see physicists from industry if the topic is directly relevant to them.

2. Some conference presentations are "inappropriate", i.e. unoriginal, too highly specialized or simply "crank". Furthermore, the scientific programme is overcrowded and getting more so. There is a need for a scientific organizing committee to make choices, rather than simply to allow every individual who wants to present a paper to do so.

### **3. Central Day of the Conference**

In the recommendations listed in section 6 we suggest that the central day of the conference be one of plenary sessions only (note we are *not* simply suggesting a series of one hour plenary lectures). Here we elaborate on possible ways in which this might be arranged; this is intended as a basis for discussion, not as a prescription. The plenary day could be organized around one, or a few, specific themes, e.g. '*nanotechnology*' or '*physics in materials science*'. It would be inappropriate to be too proscriptive of how this is done, but the following suggestions could be considered:

1. If a single theme is chosen it should be with a view to involving non-academic physicists.
2. Serious consideration should be given to networking opportunities, ensuring that people attend who are of interest to the non-academic physicists and that there is plenty of time to talk informally to them.
3. Sponsorship be sought to bring in heavy-weight researchers in areas which could have technological spin-offs.
4. Once the themes are agreed an SOC be appointed to arrange the day – it is essential that this SOC includes non-academic physicists, i.e. more than one.
5. At least one plenary speaker should be invited to "set the scene" or several shorter invited contributions could be organized during the day.
6. Contributed oral and poster papers could also be presented, but the SOC would select them from among the abstracts submitted.
7. Considerable effort should be given to organizing discussion, perhaps including panel or "round table" discussions.
8. There could be a special session at which students make presentations or ask questions or both – the appropriateness of this depends on the topics.
9. Themes should be very different from one year to the next, and preferably be cross- or multi-disciplinary. They don't have to appeal to everyone (impossible), but they should be of interest to a large fraction of the community.

#### **4. Controversial Areas**

The recommendations made above represent a consensus compromise among the people on the committee, as perceived by the chair. However, there remained strong differences of opinion about the following:

- a. Moving away from parallel sessions for specialists groups for even one day. One alternative suggestion was to develop the winter school and make it a more integral part of the conference.
- b. Publishing the proceedings – with strongly held opinions from both extremes, i.e. one person wanted to go all the way with SAPSE accredited refereed proceedings, another saw no point even in web publishing of power-point presentations.

#### **5. Conclusions**

Section 6 at the end of this document contains our recommendations for changes in the annual SAIP conference; these were motivated largely by three broad considerations:

- [1] improving the scientific standard of the meetings,
- [2] increasing participation in the conferences by non-academic physicists and
- [3] providing greater support for the conference organizers.

We make recommendations which we believe will strengthen the science, as well as improve the support for conference organizers. While we also make suggestions with regard to the involvement of non-academic physicists, this challenge requires further considerations and deeper consultations with those we would like to become involved.

The transfer of knowledge and skills between universities and business and the wider community increases the economic and social returns from the investment in higher education. This process of *knowledge transfer* (see UK 2003 Lambert Review of Business University Collaboration) is also essential for a credible national system of innovation. The most effective forms of knowledge transfer involve human interaction and the SAIP annual conferences provide an obvious opportunity to facilitate these interactions among physicists. We still need to find ways of making this happen.

#### **6. Recommendations**

The following constitute specific recommendations aimed at dealing with, or at least improving on, one or more of the challenges currently facing the SAIP and/or the conference organizers.

1. Two days of parallel sessions (symposia) should be held, these should be the first and last days of the three day conference.
2. The central day of the conference should be organized without parallel sessions and with a view to bringing in non-academic physicists. Some thoughts on how this might be done are given in section 3, but the matter requires more extended discussion, particularly among those we wish to attract, as it is crucial to the success of future conferences.
3. The SAIP AGM should be held at the end of the central day, i.e. the day without parallel sessions.
4. Plenary lectures on topics outside of the theme for the central day can be held on the other two days, perhaps one per day.
5. Scientific Organizing Committees (SOCs) for each of the symposia (parallel sessions - to take place on the first and last days) should comprise the specialist group committees and be

chaired by the chairperson of the group; it should also include a member of the LOC. Guidelines for these SOC's should be drawn-up later, if Council accepted the idea in principle. The main function of the SOC will be to decide on the form of their particular session, within constraints of the meeting as a whole. They would choose which papers were presented orally, which as posters and which were rejected entirely, and select chairs for their various sessions. They must be certain to allow for discussion.

6. The chairs of the individual SOC's (normally the chairs of specialist groups) should form an overarching SOC which should also include a representative of the LOC, preferably the chair, as well as the holder of the SAIP conference portfolio – one or other of these two should chair the virtual meetings. This SOC should not necessarily have much to do, but it should provide some coherence to the organization as well as a forum to discuss common difficulties.
7. The standard length of an oral presentation should be increased to 15 min plus 5 min for discussion – presenters should be told they have 15 mins only, so there is no question of their talking for 20 min. Where the SOC thinks it is appropriate the discussion time could be collectively left until the end of a batch of presentations.
8. The poster sessions are important and should be treated as such by all concerned. Poster sessions could include, e.g. a “1 min plus one viewgraph” oral presentation, which works *provided* it is chaired well. Organizers are to be encouraged to find innovative ways of encouraging delegates to spend time at the posters (as they have often done in the past).
9. The holder of the SAIP council conference portfolio should work closely with the conference organizers including attending the critical preparatory meetings. This will enable Council to get a better sense of the difficulties and challenges faced by the organizers while more directly influencing all aspects of the conference. It will also provide some element of continuity from one conference to the next.
10. Plenary and non-specialist speakers should be encouraged to provide their power-point presentations for publication on the web.
11. The increases in 2003 and 2004 relieved the organizers of some of the pressure to fund raise. These fees should be increased in line with inflation in future years.
12. We suggest that the SAIP President writes to the senior academic physicists who do not usually attend the SAIP conference, in the context of our initiative to reorganize the conferences. He could point out that their participation would be beneficial and ask for their insight into how the conference might be run, particularly in terms of what might induce them to take part.
13. Serious consideration should be given to getting professional conference organizers involved.
14. We encourage regional organization of SAIP meetings, particularly where this facilitates the involvement of institutes without the capacity to host a meeting themselves or it enables meetings to be held in areas which could not normally host them. Nevertheless, large institutes who are happy to “go it alone” should not be discouraged from doing so.

**Patricia Whitelock**

Convenor

30 June 2004