

## Summary of the MINUTES OF A MEETING OF THE COUNCIL OF THE SAIP

**DATE:** Friday/Saturday, 21/22 February 2003  
**TIME:** 10h30 – 18h00, 09h00-13h00  
**VENUE:** Stellenbosch Institute for Advanced Study, Stellenbosch

### 1. OPENING

The Vice-President of the SAIP, Prof. Zingu, chaired the meeting. He welcomed all present to the meeting, and thanked Prof. Geyer for hosting the meeting. Present: Dr. S.H. Connell, Prof. J.A.A. Engelbrecht (Treasurer), Prof. HB Geyer, Prof. D.J. Grayson (Friday only), Prof. H Moraal, Miss. J. Padayachee (Secretary), Prof. EC Zingu (Vice-President and Chair). Apologies: Prof. R. Bharuthram, Prof. JB Malherbe, Dr PA Whitelock (President), Prof. D.J. Grayson (Saturday only)

### 4. MINUTES OF THE PREVIOUS MEETING

Council **considered and approved** the minutes of meeting R156 held on 23 September 2002 at the University of Potchefstroom. Although traditionally done, it was decided **not** to approve the minutes of the meetings of council with specialist group chairs and council with HoDs. These minutes would be approved at the respective meetings at the 2003 conference in Stellenbosch in June.

### 5. MATTERS ARISING FROM THE MINUTES

The following items from the minutes that have not been captured under normal agenda points were discussed:

#### 5.1 Shaping the Future of Physics in South Africa

It was agreed to name the process *Shaping the Future of Physics in South Africa*. Prof. Zingu reported that the Steering Committee had met at the NRF on 21 January 2003. Funds for the National Stakeholders Meeting (NSM) as well as the activities of the 'Shaping the Future' Panel have not been approved by the Department of Science and Technology (DST). It has always been understood that DST would provide the funding but there has not been a formal request for funds to DST. In light of this, the Director General of DST has requested that a detailed funding proposal (including requests for 2005 activities-see 14) be submitted.

#### Letter of Invitation to the NSM

Council discussed the draft of the letter of invitation to the NSM. The Secretary will implement the suggested changes. The letter will be signed by the SAIP President and will be sent out on the SAIP letterhead. The Steering Committee will provide names and addresses of those who should be invited. It was decided that different letters of invitation would be sent to academic departments and other stakeholders. It was also decided to invite about 3 representatives from technikons. Dr. Connell will prepare a short (maximum 2 pages) background to the process, which will be attached to the letter of invitation.

#### 5.2 Report of the Survey of Physics in South Africa

No comments were received from the membership. The document was considered and approved by Council even though there are a few problems. These problems should be highlighted in the Foreword. It was agreed that this document is the best available for input to *Shaping the Future of Physics in South Africa*. A foreword will be written by the President.

#### Council's Response to the Recommendations on Page 11-4

Recommendations in italics

1. *The physics community, through the SAIP, should ensure that strong linkages are in place between itself and the national system of innovation, so that it can influence the developments that are occurring.*

**This point will be addressed in *Shaping the Future of Physics in South Africa*.**

2. *Embark on a 'marketing' campaign to make physical science an attractive subject at school, and physics as a desired course of study at university. This could be in conjunction with DACST, the Department of Education or by private funding from a suitable sponsor. Strategies to particularly focus on young women, and on African, Coloured and Indian potential students should form part of this campaign.*

**Council acknowledges that while the issues raised here are being addressed (in the form of science clubs, etc), this is insufficient. Funds must be secured for this issue to be addressed properly.**

3. *Provide support to the Department of Education initiative to train more science teachers and to increase the number of matriculants who are successful in higher grade physical science and mathematics. This should be done in a professional way, whether part-time or otherwise, and not in an ad hoc voluntary fashion.*

**The Education Portfolio on Council has had a positive response to the comments submitted on the draft of the FET curriculum statement.**

4. *The physics community in academia and in the science councils should embark on a campaign to form linkages with industry and the business sector.*

***Shaping the Future of Physics in South Africa* has been specifically designed to include industry and academia.**

5. *University physics departments should review their curricula with a view to making their graduates more relevant to industry and the business sector, and with a view to increasing student numbers. It might also be appropriate to examine whether 21 university physics departments, with an involvement in the output of 348 physical science degrees at all levels in 1997, are not too many in the present situation.*

**Most university physics departments have reviewed their curricula during the past 3 years. It was decided that the SAIP should perhaps meet with HoDs to discuss the quality of teaching and the curriculum of their university's undergraduate programme in light of the recently approved generic B.Sc. standards.**

6. *Request that the appropriate body compiles and maintains statistics regarding student numbers in physics at the tertiary level. Such figures are no longer available. The SAIP could consider becoming the custodian of these, and other relevant statistics regarding physics (e.g. education, industry, academic outputs, employment) so as to ensure that these statistics are collected, and so as to make them conveniently available for future planning, surveys and other investigations. In this regard it is noted that the excellent reference work, 'SA science and technology indicators', which was published by the Foundation for Research Development every three years, has not appeared since 1996.*

**Numbers of students studying physics are being requested from HoDs but these need to be analysed.**

7. *Examine why more students tend to leave university after obtaining their first degree. As this occurs across all disciplines, this is probably a matter for the university authorities.*

**This issue is linked to many factors including bursaries/funding and will be addressed in *Shaping the Future of Physics in South Africa*.**

8. *Should there be a requirement for more funds in the SAIP to support additional activities which were noted in chapters 8, 9, and 10, the membership fees could be raised to R200 per annum.*

**This issue is currently being addressed. The membership fees of the SAIP have been raised.**

9. *The SAIP should more actively market itself to the wider physics community and industry and business with the view to increasing membership, funds and its influence.*

**This issue is currently being addressed.**

10. *The SAIP should particularly concentrate on new female and African, Coloured and Indian members so as to ensure future long-term representivity.*

**This issue is currently being addressed.**

11. *The SAIP should consider the requests of providing more information to members, particularly by electronic means.*

**This issue is currently being addressed. Regular notices to the membership are sent out via email. There is also a quarterly electronic newsletter.**

12. *All SAIP council members should review the recommendations made in 'SET for success' (Roberts 2002) to see which might be appropriate and relevant to physics in the broad context in South Africa.*

**The Council is unable to get a copy of the recommended report.**

It was agreed that this Report will be the primary input for the *Shaping the Future of Physics in South Africa* panel.

### **5.3 IoP Medal**

Prof. Zingu reported that he was informed at a recent meeting with IoP representatives, that the IoP has withdrawn the offer of the medal. The offer seems to have been made solely by Alun Jones in his capacity as CEO and was not an official offer by the IoP Council. The IoP has however stated that they would be willing to provide some resources for a more visible purpose, e.g. Lecture tours.

### **5.4 Student Prize**

The SAIP student prize, for the best presentation by a student member at the annual conference, will not be pursued further. Instead, all Specialist Group prizes (except SSPMS), will award their prizes to student members only.

### **5.6 Presentation of Science Olympiad Medal**

Prof. Malherbe has had the medal engraved and the President will present the medal to the winner of the 2002 Science Olympiad at the winner's school as well as at the SAIP banquet. The conference organisers must be informed that the winner should be invited.

## **6 FINANCIAL MATTERS**

### **6.1. Provisional Budgets**

The Treasurer, Prof. Engelbrecht presented a provisional budget for the year end of 31 March 2003, as well as an updated proposed budget for the year ending 31 March 2004. The budget for the year ending 31 March 2005 will be tabled at the next Council meeting.

## **7 CONFERENCES**

### **7.1. Durban (UND) 2001**

Report still outstanding.

### **7.2. Potchefstroom (PU for CHE)**

Prof. Moraal presented a preliminary financial report. Council noted the report with gratitude. Prof. Moraal stressed that the issue of obtaining sponsorships was very stressful for organisers and that Council should consider raising the registration fees to alleviate some of the stress associated with organising a conference. It was decided that this matter will be presented to the AGM for discussion.

### **7.3. Stellenbosch (US) 2003 (Winter School – 24 June 2003, Conference – 25 – 27 June 2003)**

Prof. F. Scholtz and Prof. P. Walters (representatives of the organising committee) were welcomed to the meeting. Prof. Scholtz reported that the venues had been booked and the required infrastructure is in place. Five plenary speakers have been confirmed and the organisers are waiting for the SSPMS specialist group to finalise the last speaker. The SSPMS specialist group will cover all costs of this speaker. Application for funding Prof. Richter's trip has been made to the NRF but no confirmation has been received. The organisers proposed that the conference fees be increased to amounts similar to other conferences. This will be tabled at the AGM. Registration fees for non-members will be increased to more than a year's membership, to encourage people to join the SAIP. The cost of lunch will be included with the registration fee. The conference organisers were thanked for the preparation and their presentation to Council. They were also thanked for their hard work. The effort is greatly appreciated.

### **7.4. Bloemfontein (UFS) 2004**

Nothing to report

Prof. Grayson reported that the Chair of the IUPAP Commission C14 is keen to hold the 2004 International Conference on Physics Education (Theme: "What physics should we teach") in South Africa. Prof. Grayson suggested that it would be a good idea to link it to the 2004 SAIP conference. If majority of the members of the Education specialist group agree to holding the conference in South Africa, then the SAIP will draft a letter of invitation.

### **7.5. 2005**

The first meeting of the SAIP council was held on 7 July 1955 at the University of Pretoria. Prof. Malherbe has agreed that the University of Pretoria will host the conference. Written confirmation must be obtained.

## **8 COMMITTEES OF COUNCIL**

### **8.1 Awards Committee**

No nominations have been received. The closing date for nominations is 28 February 2003.

### **8.2 Education Committee**

Prof. Grayson reported that she submitted a consolidated report to SAUWCA. Prof. Grayson was invited to a meeting with Nkopodi Nkopodi (member of the Ministerial Project Committee responsible for the natural sciences) and Lebs Mphahlele (National Department of Education - responsible for coordinating the responses to the Natural Sciences curriculum statements). John Bradley (Chemistry, Wits) and James Hlongwane (NSTF) were also invited and learned that the FET Curriculum Statement for Grades 10-12 will not be implemented in 2004. Prof. Grayson was informed that the efforts and comments submitted thus far were appreciated and more interaction was anticipated.

Prof. Grayson was thanked for her efforts in submitting comments and Council was pleased at the positive effects on the development of the FET Curriculum Statement.

### **8.3 Transformation Committee**

Council responded to the suggestions of the Transformation Committee.

### ***Language Policy***

Council agreed with Prof. Engelbrecht's suggestion as detailed below. This suggestion will be tabled at the 2003 AGM.

### **Prof. Engelbrecht's Suggestion and Motivation**

"I believe the following PROPOSAL from me could provide a happy medium for all concerned (Note that : brackets [ ] = delete, underlined = insert) :

"That the Constitution of the SAIP be amended to read as follows :

#### 1. TITLE

1.1 The [English] title of the Association shall be "The South African Institute of Physics"

[The Afrikaans title of the Association shall be "Die Suid- Afrikaanse Instituut vir Fisika"]

Motivation : It would be unfair to have the title in only two of the official eleven languages. In reality, English is the language of common use.

1.2 [The Institute shall be a bilingual organisation and in its publications and at its meetings both Afrikaans and English shall be freely used]. The activities of the Institute may be conducted in any of the official languages on South Africa."

Motivations:

- a) This will bring the SAIP in agreement with the Constitution of South Africa,
- b) While the door is open for the use of any of the South African languages, it is already a fact of life, even with the current bilingual Constitution of the SAIP, that activities are conducted in English. And will remain so, since anyone who wants to share research with the broader community will do so in English. This should however not be used as an excuse/motivation for English as the ONLY language of use,
- c) We will avert a feeling of "not belonging" by the Afrikaans- speaking members of the SAIP.
- d) A similar resolution was included in the Constitution of the Microscopy Society of Southern Africa, and has lead to a greater sense of "family" amongst members of that Society, while activities continued to be conducted in English."

### **Logo**

Council felt that a competition should be held to get submissions for a logo with a prize awarded to the winner. Dr. Connell will contact graphic designers to get an estimate of the cost of having the logo designed professionally.

### **Conference Matters**

Council rejects the recommendation that the conference be held biennially (Reasons: MSc and PhD work will become stale, most MSc students won't be able to attend) or in January (many other summer schools are now held in January). The conference is traditionally held in the first week of July unless there are compelling reasons to move it.

### **Africa**

The recommendation is accepted.

### **Structure of Council**

Council rejects that Specialist Group Chairs sit on the Council and suggests that a Specialist Group Liaison be a member of Council.

Council rejects the proposal of a Past-President and supports the proposal of a President-Elect. Council also supports that the President –Elect is elected to Council by the membership, provided that the election process doesn't eliminate the loser/s to stand on Council in another portfolio. Council suggests that the President-Elect must be a current member of Council. This maintains the continuity between Councils. The duty of the President-Elect will be to support the President.

Council supports the Student Member on Council and suggests that an opportunity be created at the Annual conference for students to elect their representative on Council.

Council supports the proposal that Council members be limited to 4 consecutive terms in office.

### **Portfolio Committees**

The issue of Portfolio Committees will be re-visited when the *Shaping the Future of Physics in South Africa* process is complete. The proposal is not feasible at the moment as there are not enough physicists to serve on the committees.

### **Specialist Groups**

Council rejects the proposed merger of the Theoretical Physics and Nuclear, Radiation and Particle Physics Specialist Groups. A formal comment on the proposal will be requested from the chairs of these groups.

Council accepts the proposal of a merger between the Astrophysics and Solar, Plasma and Terrestrial Specialist Groups. The chairs of these groups will be informed that Council encourages them to consider the benefits of merging.

Council encourages the Education Specialist Group to expand their interests to outside of university physics.

Council accepts the proposal that the Applied Physics Interest Group change its name to the Applied and Industrial Physics Specialist Group. Council also feels that this group should develop a strategy for improving the standing of applied and industrial physics in the South African physics community..

Council rejected the proposed name change of the Lasers, Optics and Spectroscopy Specialist Group.

Council agreed that *Shaping the Future of Physics in South Africa* should look at boosting applied and industrial physics.

Prof. Zingu and Dr. Whitelock will contact the South African Association of Physicists in Medicine and Biology to promote ties between the two organisations.

### **Regional Representations**

Council accepts the recommendations.

### **Referendum**

Council rejects the proposal of a referendum. The matters recommended be included in the referendum have been discussed by Council and these suggestions will be tabled at the 2003 AGM.

### **Role and Purpose of the SAIP and Strategic Planning**

Council notes the suggestions.

## **8.4 Portfolios of Council**

### **(a) Communication**

Proposal for Management of Website

Council accepted Ms. Padayachee's proposal (of hosting the site on a commercial server with the domain name: saip.org.za) for the management of the web-site. Ms. Padayachee will liaise with the current web-manager (Ms. Wanda Botha) to ensure a smooth transition. Council did not feel the need for the site to be redesigned.

**(b) Conferences** (Prof. Malherbe)

**Increase of Funds for Overseas Speaker**

Council agreed that the money made available from the SAIP budget for an overseas speaker will be increased to R12 000. Details of speaker must be provided by the conference together with the application for the money. The Conference Guidelines will be amended to reflect this.

**(c) Marketing**

**Emasondosondo**

Dr. Connell reported on the Emasondosondo Project. Dr. Connell requests that the SAIP President write to University HoDs requesting that Postgraduate students be allowed to assist with the project. Dr. Connell will draft the letter.

**Science Clubs in Schools**

In order to expand the science club idea to regions outside of Gauteng, Dr. Connell suggested that the SAIP contact national laboratories, universities, etc, requesting names of people who can be contacted by schools for talks, information, etc. These names can be displayed on the SAIP web-site.

**Incorporation of Schools into the SAIP Conference (K. Govender)**

Council supports Mr. Govender's proposal but requires that the invitations to specific sessions at the conference be sent to a carefully selected group of learners. Dr. Connell will explore the possibility of holding the finals of the Schools Science Expo at the SAIP conference.

**Physics Video**

Dr. Connell reported that the initial quotation obtained by Prof. Spoelstra was realistic and possibility of obtaining sponsorship is being investigated.

**9 SPECIALIST GROUPS**

Council commented on the proposed "Guidelines for Specialist Group Chairs". The discussed changes will be implemented and the document will be circulated to Specialist Group Chairs. Council noted the reports of the Plasma, Solar and Terrestrial and Lasers, Optics and Spectroscopy Specialist Groups.

**Theoretical Physics**

Prof. Geyer reported that funding has been obtained for a summer school with teacher/learner linked activities. Prof. Geyer is trying to get Mr. Case Rijdsijk involved.

**10 SAIP AFFILIATIONS AND REPRESENTATIONS**

Nothing to report.

**11 INTERNATIONAL LIAISON**

**11.1. IUPAP**

Prof. Zingu reported that South Africa was successful in the bid to host the 2005 IUPAP General Assembly. Council recommended that the 3-person Steering Committee be drawn from members of the IUPAP National Liaison Committee. Council preferred the Kruger National Park as a venue for the

conference but acknowledged that this would be logistically difficult. Council felt that the decision of a venue be left to the Steering Committee.

## 12 MEMBERSHIP MATTERS

### 12.1. New Members since last meeting

Prof. K. Agyeman (O)	Ms. R. R. Maphanga (S)	Mr. M.J. Phasha (S)
Miss. L. Amon (S)	Mr. B. Mapuranga (S)	Mr. M.J. Ramusi (S)
Mr. B.M. Archary (S)	Mr. D.F. Masita (S)	DR R.R. Sefako (O)
Mr. H. Azemtsa Donfack (S)	Mr. B.A. Mathe (S)	(Upgrade)
Mr. H.R. Chauke (S)	Dr. K.A. Meyer (O)	Ms. S.P. Segonyane (S)
Dr. K.G. Chinyama (O)	(Upgrade)	MR. M. Simon (S)
Mr. M.M. Dalton (S)	Mr. D. Mkhonto (S)	Mr. M.J. Sithole (S)
Mr. J.S. De Villiers (S)	Mr. V. Mofokeng (S)	Dr. M.B. Tchoula Tchokonte
Mr. J. Dicks (S)	Ms. H.L.K. Mohlaka (S)	(O)
Ms. S. Goedhart (S)	Ms. M.M. Mokagane (S)	Miss. V. Vankova (S)
Dr. P.A. Hobden (O)	Dr. S. Mukherjee (O)	Mr. S Woodford (S)
Mr. S.S. Mangwejane (S)	Mr. T.T. Netshisaulu (O)	
Mr. M.A. Mahladisa (S)	Prof. A. Ogulu (O)	

### 12.2 SAIP Membership Summary as at 6 February 2003

#### By Category

Honorary	12
Emeritus	11
Ordinary	290
Associate	26
Student	75
Retired	28
Institutional	3
Honorary Institutional	1
<b>Total Members</b>	<b>446</b>

#### By Specialist Group

Applied Physics Interest Group	38	77
Astrophysics	45	11
Education	32	46
Lasers, Optics and Spectrometry	32	20
Nuclear, Radiation and Particle Physics	66	34
Solar, Terrestrial & Plasma Physics	22	23
Solid State Physics and Material Science	133	45
Theoretical Physics	24	29
General	9	22

### 12.3. Emeritus Members

Profs. H.L. Gaigher and J.A. de Wet have been accepted as Emeritus members.

## 13 PHYSICS 2005

### 13.1. SAIP 50<sup>th</sup> Anniversary Commemorative Stamp

Prof. Moraal reported that the application process has been started

### 13.2. *Physics 2005* Activities

Council decided that Steering Committees will be created for the following *Physics 2005* activities. People to serve on these committees must be selected.

- SAIP 50<sup>th</sup> Annual Conference – Pretoria (**Malherbe**)
- IUPAP General Assembly 2005 (**Zingu**)
- Regional Activities: Public (**Connell**)
- Regional Activities: Schools (**Connell**)

Prof. Zingu will be the interim co-ordinator of *Physics 2005* and the committee formed by the chairs of each Steering Committee will be chaired by the SAIP president or vice-president.

### 13.3. World Year of Physics 2005 Conference

Members will be informed about the conference and will be requested to attend if they are in the vicinity.

**13.4. Physics 2005 Budget**

The budget was discussed. Prof. Zingu will draft a letter to DST.

**14 GENERAL**

**14.1. Election of Council for 2003-2005 term**

The President, Dr. Whitelock was elected to the next Council. The remaining office-bearers to be nominated are the Secretary, Treasurer and 6 members.

**14 NEXT MEETING**

It was decided that the next meeting will be held on **24 June 2003** in Stellenbosch, despite this coinciding with the 2003 winter school. Please note: This will be a meeting of current and new Council.

**MISS J PADAYACHEE**

**PROF EC ZINGU**

**Secretary**

**Vice-President**

XX