



# Minutes of the 53<sup>rd</sup> Annual General Meeting of the South African Institute of Physics

Date: Friday, 11 July 2008, Time: 08h00 to 10h00  
R-40 conference hall, University of Limpopo, Polokwane

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## 1. Opening and Welcome

The President of the SAIP, Prof. Nithaya Chetty, welcomed all to the University of Limpopo and thanked the local organizing committee for an excellent conference.

## 2. Attendance

The meeting was attended by 36 members and 45 non-members.

Apologies: R.A. Burger (NWU), A. Leitch (NMMU), A.Z.A. Combrink (HartRAO) and J.E. Smit (UP).

## 3. Matters for discussion under General

There were no matters added for discussion under *General*.

## 4. Minutes of the previous AGM (A52)

The minutes were accepted without amendment. Proposer: Prof. D. Britton, Seconder: Mr. G. Bosman.

## 5. Matters arising from the minutes

There were no matters arising from the minutes that were not captured in the agenda items.

## 6. President's report

Prof. Chetty presented the President's report for the year 2007–2008. A copy of the report appears in Appendix A at the end of the minutes. Some points highlighted from the report:

### **Council**

Dr Jaynie Padaychee resigned due to work pressures and Dr Andrew Forbes was co-opted as secretary on 08 July 2008. The President expressed his gratitude for the services rendered by Dr Padaychee over the many years she served on Council.

### **President-elect**

The Council established a task team comprising Prof N. Chetty, Prof H. Moraal and Prof J. Engelbrecht, to assess the circumstances surrounding Prof Simon Connell's (SC) dismissal from Wits. After a lengthy consultative process, where all affected parties were interviewed and where all relevant documents were considered, the task team made the following concluding recommendations to the Council:

*In the final analysis, without casting aspersions on SC's testimony, as well as not calling into question the independence of the Wits disciplinary process, the TT notes that SC's dismissal from Wits is an unsettled matter that is under appeal. In discussions with the TT, SC has agreed to relinquish his position as the president-elect of the Institute, and to return as an Ordinary member of the Council, subject to a resolution to this effect by the Council. This does not preclude SC from standing for elections again as the president-elect or for any other position on the Council at a time when the matters around his dismissal are properly resolved. SC has the opportunity to clear his name through the appeal process that is underway, and to continue re-building his career.*

Council accepted the recommendations of the task team on 08 July 2008.

## **Executive Office**

The SAIP is moving into a more modern and professional era with the establishment of the Executive Office of the Institute. Mr Brian Masara has been appointed the Executive Officer in January 2008, and has been hard at work managing SAIP projects, and helping the Council initiate new projects. The SAIP now has a physical address at the DST Buildings in Pretoria, which puts Mr Masara in constant contact with key government officials. The aim is for the EO to be involved in income generation projects that are of benefit to the SAIP and to physics nationally. All funds to date are through a grant from the DST, and this is secure for three years with the condition that the EO work toward financial sustainability over this period of time.

### **6.1. Comments on the report**

- It was queried why the local organising committees of SAIP conference continue to “re-invent the wheel”. It was suggested that professional organisers be used. Council pointed out that this is expensive, but that in future the EO of the SAIP would assist in the conference organisation in order to ensure a high standard. Many complaints were raised with respect to the low standard yet high cost of accommodation at hostels - Council was urged to look into this.
- It was queried why there is not a ‘proceedings’ of the SAIP conference. Council pointed out that this has been tried in the past, but without success. Dr. Naidoo (Wits) pointed out that some manuscripts from the 2007 conference would appear in the South African Journal of Science, but that there were insufficient quality manuscripts to warrant a special issue of the journal.
- Prof. Whitelock questioned the need to make a profit from the annual conference, pointing out that the conference was “expensive enough”. It was suggested by Prof. Britton that Council should consider using marketing opportunities to make the profit, with member fees only to break-even. Council should approach the NRF for financial support of students attending the conference.

## **7. Financial report for 2007 – 2008**

The Treasurer, Prof. Engelbrecht, tabled the audited financial statements for the financial year 1 April 2007 to 31 March 2008. A copy of the financial statements appears in Appendix D at the end of the minutes. It was pointed out that the SAIP ended the financial year with a surplus of ~R1.8m, of which all but ~R560 000 was already earmarked for projects. The SAIP is investing R100 000 per year into the Executive Office.

The financial statements were accepted by the membership.

## **8. Budget for 2009 – 2010**

The Treasurer, Prof. Engelbrecht, presented his budget for the financial year 1 April 2009 to 31 March 2010. The budget proposed a 7% increase in membership fees across all membership categories. After vigorous discussion this was rejected by the membership. A new proposal was tabled for a 10% increase in the fees of Ordinary Members and no increase for all other membership categories. This was accepted by the membership by unanimous vote.

## **9. Constitutional change**

Council tabled the following proposed constitutional change, to be added as clause 10.6 (Section 10: Alterations To And Revisions Of The Constitution) to the constitution of the South African Institute of Physics:

*In 2009 (or soon thereafter), the membership will adopt a new constitution with a 2/3 majority after a fully consultative process.*

The proposal was accepted unanimously.

## **10. Women in Physics in South Africa (WiPiSA)**

Dr. Gledhill briefly reported on the activities of the WiPiSA group. The group were active at the conference in organising events for students. It was highlighted that the group was not

exclusively for women but rather for persons of any gender with an interest in promoting women in physics.

### **11. Report from the Specialist Group Liaison on Council**

There was insufficient time for the Specialist Group Liaison on Council, Prof. Erich Rohwer, to adequately present his report to the AGM on behalf of the Specialist Groups. More information about the activities of the Specialist Groups may be obtained from the websites of the groups, accessible from the SAIP web site. A copy of the report appears in Appendix B at the end of the minutes.

### **12. Report from the Student Liaison on Council**

There was insufficient time for the Student Liaison on Council, Mr. Gurthwin Bosman, to adequately present his report to the AGM on behalf of the Student Forum. A copy of the report appears in Appendix C at the end of the minutes.

### **13. Conference Matters**

Prof. T. Konrad presented an outline of the planned activities for the 2009 SAIP conference. He noted that the conference organising would be outsourced to professionals within the UKZN, allowing the local organising committee to concentrate on the technical and social programmes. His presentation was greeted with enthusiasm by those present at the AGM.

### **14. CLOSURE**

The Meeting closed at 10h00.

President: N. Chetty	Secretary: A. Forbes

# Appendix A: President's Report

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11 July 2008

## President's Report Annual General Meeting

### Note

The SAIP Annual Report shall include a copy of the President's Report together with various other reports: Treasurer, Council Student Committee, Council Marketing Committee, Council Education Committee, reports of all Specialist Groups, Women in Physics, International Liaison, Industrial Liaison, etc. Please ensure that all reports are sent to the Secretary, Dr Andrew Forbes before the end of July 2008.

### Thanks to Limpopo

Appreciation is expressed to the Physics Department and the Materials Modelling Centre for a successful hosting of the 53<sup>rd</sup> annual conference. A year ago, the proposal to host the conference was still being negotiated with Council. So, it is remarkable that U. Limpopo were able to stage the conference at such short notice. A special thanks to Dr Erasmus Rammutla and Dr Lutz Ackerman and the LOC for their sterling efforts. I wish to express gratitude also to Dr Peter Martinez for representing Council on the LOC.

Council agreed to a shortened version of the conference for logistical reasons, but the expectation is that we will return to the full four day format in future.

Council has been treated very well indeed in terms of the many meetings that were arranged on behalf of Council, and this is gratefully acknowledged. Council congratulates Prof Phuti Ngoepe for hosting a very successful Winter School on Computational Materials Science in collaboration with the Royal Society and the CHPC.

### Council

<b>Prof N. Chetty (UKZN)</b>	<b>President - Exec</b>	
<b>Prof. J.A.A. Engelbrecht (Treasurer - NMMU.)</b>	<b>Treasurer - Exec</b>	
<b>Dr Andrew Forbes (NLC-CSIR and UKZN)</b>	<b>Secretary - Exec</b>	<b>Co-opted</b>
<b>Prof. H. Moraal (North-West U.)</b>	<b>International Liaison - Exec</b>	<b>Co-opted</b>
<b>Dr. S.H. Connell (UJ)</b>	<b>Ordinary Member</b>	
<b>Dr. I.M.A. Gledhill (CSIR)</b>	<b>Ordinary Member – Industrial Liaison</b>	
<b>Prof. W.D. Heiss (U. Stellenbosch),</b>	<b>Ordinary Member - Awards</b>	
<b>Dr. P. Martinez (SA Astronomical Observatory)</b>	<b>Ordinary Member - Conference</b>	
<b>Dr. A.Z.A. Combrink (HartRAO)</b>	<b>Ordinary Member – Marketing</b>	
<b>Prof. E.G. Rohwer (U. Stellenbosch)</b>	<b>Specialist Group Rep</b>	
<b>Mr. G.W. Bosman (U. Stellenbosch)</b>	<b>Student Rep</b>	
<b>Mr Byren Archary (DST)</b>	<b>In attendance</b>	<b>Co-opted</b>
<b>Mr Brian Masara (SAIP)</b>	<b>Executive Officer in attendance</b>	

Dr Jaynie Padaychee resigned due to work pressures. Dr Andrew Forbes was co-opted as secretary on 08 July 2008. I would like to express gratitude to all Council members for their tremendous contributions and hard work over the course of this past year.

The Executive was depleted for much of this year, and I would like to express sincere thanks to Prof Harm Moraal and Prof Japie Engelbrecht whom I leaned on greatly as we dealt with many challenges issues during this time, such as setting up of the Executive Office.

Council meets three times per year. We keep our travelling expenses down to a minimum: For the July conference all councillors pay their own way. At the October council meeting, Council doubles as the SA IUPAP Liaison Committee; the meeting is held at the NRF and the SA ICSU office pays for travel. Furthermore some councillors pay for their own travel for the February meeting.

### **President-elect**

The Council established a task team comprising Prof N. Chetty, Prof H. Moraal and Prof J. Engelbrecht, to assess the circumstances surrounding Prof Simon Connell's dismissal from Wits. After a lengthy consultative process, where all affected parties were interviewed and where all relevant documents were considered, the task team made the following concluding recommendations to the Council:

*In the final analysis, without casting aspersions on SC's testimony, as well as not calling into question the independence of the Wits disciplinary process, the TT notes that SC's dismissal from Wits is an unsettled matter that is under appeal. In discussions with the TT, SC has agreed to relinquish his position as the president-elect of the Institute, and to return as an Ordinary member of the Council, subject to a resolution to this effect by the Council. This does not preclude SC from standing for elections again as the president-elect or for any other position on the Council at a time when the matters around his dismissal are properly resolved.*

*SC has the opportunity to clear his name through the appeal process that is underway, and to continue re-building his career.*

Council accepted the recommendations of the task team on 08 July 2008.

I would like to express gratitude to Dr Connell for his sterling contributions as the president-elect over the past year, and now he continues to do so as an Ordinary Member of the Council, and for his fullest cooperation with the task team process. I wish him success in his new associate professorship at the University of Johannesburg.

### **Council Elections 2009**

Council resolution: At the next round of Council elections scheduled for March/April 2009, there shall be a call for nominations for the president of the SAIP. Any member of good standing with a minimum of two terms on the Council shall be eligible.

It is important that we give serious thought to our election processes, within Council and also within all groupings of the Institute. We need hard working and dedicated individuals who are serious about moving the agenda of physics forward. The work of the Institute has become much greater. We also need to give attention to electing a good balance of youth and experience. Issues around diversity are important in the South African context, and due consideration should be given to this. In relation to ICSU-related funding recently, this matter was brought up.

### **Constitutional amendments**

The Council should be free to choose not to fill a vacancy if it so wishes, or to fill a vacancy in a manner as it deems fit, i.e. either hold a by-election, or co-opt an individual, or re-arrange the current portfolios amongst the current Council members.

A new constitution is being drafted by the Council Constitutional Committee. This is an enormous task that began in 2006 that involves assessing the changing environment that the SAIP currently finds itself in, for example in terms the Executive Office, tax, VAT, and NPO status. Also we increasingly need to adopt the principle of delegated authority in overseeing the work of the SAIP, and this principle should be applied to the multiply levels of the Institute wrt to Specialist Groups, committees, task teams, etc. The manner in which various groupings of the Institute are constituted is being given due consideration. Also clauses around code of conduct and conflicts of interest are being drafted for ALL officers of the Institute. Constitutions from allied bodies such as the SACI, the ASSAf, Royal Society, and elements of the IoP and APS are being considered. This shall become a widely consultative process involving the Constitutional Reference Group, and then the full membership. It is intended that a draft document will be presented at the 2009 AGM.

### **Membership**

Category	2002	2003	2004	2005	2006	2007	2008

Associate	25	26	19	17	18	16	13
Emeritus	10	12	10	11	28	33	33
Honorary Inst	1	1	1	1	1	1	1
Honorary	11	12	12	12	12	11	12
Institutional	4	3	4	4	3	3	3
Ordinary	291	295	274	260	258	273	245
Retired	25	26	20	18	6	4	6
Student	48	113	154	166	173	207	154
Subscriber							1
<b>Total</b>	<b>415</b>	<b>488</b>	<b>494</b>	<b>489</b>	<b>499</b>	<b>548</b>	<b>468</b>

A membership drive is being instituted by the Council Marketing Committee.

### **The Executive Office**

The SAIP is moving into a more modern and professional era with the establishment of the Executive Office of the Institute. Mr Brian Masara has been appointed the EO in January 2008, and has been hard at work managing SAIP projects, and helping the Council initiate new projects. It is exceedingly more helpful now to have the professional assistance of the EO to see many of our projects through to completion. The SAIP now has a physical address at the DST Buildings in Pretoria, which puts Mr Masara in constant contact with key government officials. Mr Masara will be spending a week with the IoP in September to learn more about the management of IoP programmes, and fundraising projects. The financial viability of the EO is an enormous challenge for the Institute. The aim is for the EO to be involved in income generation projects that are of benefit to the SAIP and to physics nationally. Miss Isabella Melato has recently been appointed as the personal assistant to the EO. A marketing officer will be appointed soon jointly by the SAIP and the NLC. All funds to date are through a grant from the DST, and this is secure for three years with the condition that the EO work toward financial sustainability over this period of time. The document "Role of the Secretariat" available on the SAIP website needs to be widely circulated.

### **Graduate Student Database Project**

Mr Brian Masara to report.

### **Women in Physics**

The Women in Physics in South Africa Committee is chaired by Ms Mmanstae Diale. A report is presented by the WiPiSA representative.

### **Council Student Committee**

A report is presented by Mr Gurwin Bosman, the student rep on Council.

### **Specialist Groups**

Council has met with all Specialist Group Chairs on Thursday 10 July 2008. A brief report is presented by Prof Erich Rohwer who is the Specialist Group rep on Council.

### **Council Education Committee**

This committee is chaired by Dr Case Rijdsijk. We have discussed a clear distinction between the CEC and the ESG. Current work of the CEC includes managing the FET project on behalf of Council. Also, the CEC is in discussions with Deloitte and Touche on the "Teach South Africa" project which is creating an exciting opportunity for the SAIP to assist in addressing many of the difficulties around the changed high school curriculum in physical science. Thanks to Prof Simon Connell for initiating this project with D&T.

Efforts are being made to institute an annual Physics Olympiad. Also, the CEC is investigating the potential for a new publication to be drafted with school children and teachers as the market, following similar lines to the 'Mathematical Digest'. The CEC was requested to make a proposal to Council for this initiative.

The CEC is an example of Council adopting the principle of 'delegated responsibility'.

### **Council Marketing Committee**

This committee is chaired by Dr Attie Combrink. New publicity materials are being produced for the SAIP that includes a branding campaign. A membership drive is being initiated. Benefits for members are being communicated to the physics public. The SAIP website is being managed. A marketing officer funded by the DST is being recruited to produce materials. There is close cooperation with SAASTA.

A new quarterly publication "Physics Comment" is being designed – this will be managed by an independent Editorial Board. Dr Jaynie Padaychee has been appointed Editor-in-chief. PC will be in the form of a colour pdf electronic document with digital images. Advertising revenue will be solicited. It is hoped that this new medium will stimulate more discussion about future directions in physics in South Africa and beyond.

### **Industrial Liaison**

This portfolio is held by Dr Igle Gledhill, and she chairs the Council Industrial Liaison Committee. The Physics500 project is tracking physicists working in industry. Dr Kevin Meyer was contracted to develop a web-based system to manage the data collection. Brochures focussing on physics and physicists in industry may be automatically generated for publicity purposes. Physics500 will be the basis of a more concerted strategy for the SAIP to engage directly with industry in the future, primarily through the Council Industrial Liaison Committee, and the Applied Physics and Industry Specialist Group.

It is very heartening to see the tremendous increase in the contributions to the Applied Physics academic sessions at this conference after some years of difficulties. Council views this change very positively, and emphasises the need for a strong and vibrant Applied Physics community within the Institute.

### **International Liaison**

Prof Harm manages this portfolio on Council. The Council doubles as the SA IUPAP Liaison Committee. IUPAP related matters need to become more prominent in South Africa, and I urge Specialist Groups to become more strongly coupled to IUPAP activities, especially international conferences – the SA-ICSU office is encouraging this, and some new funding mechanisms are emerging.

Our representatives at the IUPAP GA in Japan in October 2008 are Prof Erich Rohwer (voting candidate), Dr Igle Gledhill (alternate candidate) and Dr Attie Combrink (developmental candidate). Currently Prof Patricia Whitelock, Prof Diane Grayson, Prof Ockie de Jager and Prof Nithaya Chetty represent South Africa in their respective commissions on the IUPAP. New South Africa nominations have been submitted to the IUPAP for the election process that will take place at the GA in Japan. The names of successful candidates will be announced at the appropriate time.

The ICSU GA is to be held in Maputo in October, and Council will be represented by Mr Brian Masara. Mr Brian Masara will be visiting the IoP in September. The lecture series proposed by Dr Herrman Uys from Arizona State University awaits his further communication. Two publications appeared in the APS News in January and March 2008 co-authored by Moraal, Connell and Chetty.

### **De Beers Gold Medal**

We shall be awarding the 17<sup>th</sup> De Beers Gold medal tonight. A high level delegation in the name of Mr Manne Dipico (former premier of the Northern Cape) and Mr Nico van Zyl (marketing manager of DebTech) will grace the De Beers banquet tonight to do the honours of making the award to the successful candidate.

I wish to thank the Awards Committee chaired by Prof Dieter Heiss for their outstanding job. The selection committee comprises physics researchers of high standing, and the committee is independent of the Council.

We have just one more medal left! Council has been able to successfully negotiate with de Beers for the SAIP to continue to use the name "de Beers Gold medal award" into the future. No financial support is guaranteed at this

stage. We believe that irrespective of the funding, we must continue with the tradition of excellence that is associated with the name of the award.

#### **Prof CB van Wyk donation**

Council is very grateful to Prof van Wyk for his fantastic generosity. An amount of R50 000 was donated to the Institute to recognise excellence. Council has decided that the interest from this fund will contribute toward a cash prize in the name of Prof van Wyk that is awarded to the Silver Jubilee winner.

Council is contemplating the establishment of a trust fund for recognising excellence in physics. More philanthropy is hoped for, and more funding is being solicited. The EO is actively pursuing these matters on behalf of the Council.

Under these circumstances, Council could re-visit its decision on the future of the CB van Wyk donation, as a separate and more substantial CB van Wyk Fellowship or Award may be contemplated.

#### **OR Tambo Award**

Prof Simon Connell and Mr Brian Masara have met with Mr Dali Tambo about the establishment of an award to honour his late father who himself was a physics and mathematics graduate from Fort Hare University, and who taught science during his exile years in England. There is strong support for the establishment of a suite of awards, and Mr Tambo has pledged to assist in fund raising for the Institute.

#### **History of Physics**

Prof Runan de Kock (US) is compiling a publication on the History of Physics in South Africa. He has requested submissions from all physics departments and institutions. 63 manuscripts have been solicited and 45 have been received. If your institution has not responded, please do so. Council fully supports this project despite some concerns that were raised at the AGM last year.

#### **Council meeting with Heads of Departments**

A proposal has come from our meeting on 09 July 2008 calling for a high level review of the state of high school teaching of physical science and our state of undergraduate teaching at our universities. A suggestion was made that this should be a collaborative effort with other professional societies (chemistry and mathematics), and that this be a presidential intervention. This is a matter that Council plans to take very seriously, and could be named "Shaping the Future of Science Education in South Africa". A task team has been elected to advise Council on the broad principles by which such an exercise could be governed.

#### **Honorary members**

The Council has elected two members to Honorary status. This shall be announced at the banquet tonight.

#### **Representatives of the SAIP on various bodies**

There is some confusion about who represents the SAIP Council on various bodies. We need to accept that ALL appointments cease at the end of each Council term, and it is incumbent on the new Council to make new appointments.

#### **Tax Exempt Status**

Thanks to Prof Japie Engelbecht and Prof Simon Connell for helping us achieve the SARS Tax Exempt Status. Deloitte and Touche were paid to act on behalf of the Council on this matter. The expectation is that the SAIP will now need to file income tax returns annually to the Tax Exempt Office. Thanks to Prof Japie Engelbrecht for taking on this additional burden.

#### **SAIP Conference**

Despite detailed Council conference guidelines, there is still too much of "re-inventing" the wheel. We need to centralise many key services in the EO. Also, the EO needs to get more directly involved in the financial planning and financial management of the annual SAIP conference.

The Durban conference organisers need to be aware about these shifting responsibilities. In addition to the Council Conference portfolio being represented on the LOC, so too should the Executive Office.

Council believes that the annual SAIP conference should be planned with a profit per person in mind. Council wishes to explore the response from the membership.

There have been significant delays in publishing the selected papers from the 2007 conference in the SAJS. Dr Graham Baker has communicated with Council about this on several occasions. Many of the student submissions fell short of acceptable standards. This could reflect badly on the SAIP.

#### **International year of Astronomy 2009**

A national committee is in place, and SAIP has adequate representation. This is a very special opportunity, not just for Astronomy but also for all other disciplines of physics, especially with regard to the promotion of science to our learners and students. It is intended that the 2009 SAIP conference which will take place in Durban will be the focal point of the SAIP celebrations, but other events are also being planned for the year.

A handwritten signature in black ink, appearing to read 'Nithaya Chetty', with a long, sweeping horizontal stroke extending to the right.

**Nithaya Chetty**  
**President**

## Appendix B: Specialist Group Liaison Report

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### **Applied Physics (Chair: Prof. T. Derry)**

Committee:

Katse Mophoto  
Freddy Foster  
Angus Morrison  
Chantelle Radue

The level of interest is buoyant (31 orals, 3 posters). Consultation with other specialist groups possible in assessing abstracts and prizes.

AGM was attended by 14 people. Committee was elected.

### **Astrophysics and Space Science (Chair: Dr. R. Sefako)**

Committee:

Secretary: Dr Stefan Ferreira

Treasurer: Dr Patrick Woudt,

Student representatives: Patrick Sibanda (space science) and Marissa Koltze (astrophysics).

### **Annual conference:**

Thanks to the generous contributions by the national facilities HMO, SAAO, HartRAO and the Center for High Performance Computing (CHPC) and SAIP, student prizes will be awarded again this year. In future parallel sessions for the specialist presentations of each community Astrophysics and Space Science, but with joint sessions for non-specialist lectures will be held.

There is a possibility of South Africa hosting the 2015 General Assembly of the IAU. Furthermore, Cape Town had already been offered as host of the 2011 regional meeting of the IAU for the Middle East and Africa (MEARIM).

### **Highlights for the period July 2007 – June 2008:**

#### **HartRAO**

The two most significant events at HartRAO during the past year are the final erection and commissioning of the XDM KAT prototype antenna, and the achievement of e-VLBI connectivity to Europe with a sustained data rate of 32 Mb/s

#### **HMO**

During the year the HMO holds three major schools for students, namely:

- A summer school in Digital Signal Processing for 3<sup>rd</sup> year students;
- A summer school in space physics for NASSP honours students;
- A winter school in space physics for 3<sup>rd</sup> year students;

The Department of Communications (DoC) has purchased a new ionosonde which has been installed at the HMO 1 July 2008

#### **SAAO**

2007/08 has been dominated by SALT commissioning and the ongoing investigations into the two main problem areas that have prevented SALT from reaching its design goals:

- (i) the image quality (IQ) does not meet specification across its full field of view. A mechanical redesign is now underway with major progress expected by the end of the year.
- (ii) the blue throughput loss in the main SALT instrument, RSS (Robert Stobie Spectrograph) is due to an optical problem with the lens coupling fluid. The optics were sent back to California for repair

Meanwhile all SALT testing and observing is being performed with SALTICAM, the imaging camera, in both conventional and fast modes.

At the Durban SALT Board meeting in October, both AMNH and IUCAA were formally welcomed as new SALT partners.

At the Gottingen SALT Board meeting in May, the University of Wisconsin announced their receipt of a \$3.3M grant to build the near-IR arm of RSS.

SAAO's Cape Town site is undergoing a major electrical upgrade/refurbishment in order to support a new IT centre which will house a data archive/processing facility for SALT data.

In Sutherland, the new Recreation Centre for local staff, visitors and observers was opened by Prof Krish Bharuth-Ram. All these developments have been funded jointly by the SALT Foundation and NRF/DST.

#### **Condensed Matter Physics and Material Science (Chair: Prof. D. Britton)**

Committee:

Prof David Britton,

Prof Hendrik Swart,

Prof Koos Terblans,

Prof Japie Engelbrecht,

Prof Karen Prussner,

Ms Mmantsai Diale,

Prof Johan Malherbe.

Dr. Chris Theron of Element Six will continue as the Industry Representative.

The specialist group sessions were well attended, particularly by younger and student members, and available presentation slots were filled. The Awards Programme was again advertised widely in order to encourage students to present their research work in the fields of Condensed Matter Physics and Materials Science. Entries were received for all categories, except for the two Honours prizes. A third workshop in the highly successful "photonics materials" series will be organized by Prof Danie Auret to be held in 2009.

#### **Physics Education (Chair: Dr. G. Arendse)**

Committee:

Vice Chairs Sam Ramaila (UJ) and Kevin Govender (SAAO).

- The primary and urgent task for the group is to carry out a detailed survey of all Physics Education Research taking place in South Africa and to establish links with these researchers and students. This will be a drive to re-invigorate the PESG. This will entail examining other similar conferences and communities such as the South African Association for Research in Mathematics, Science and Technology Education (SAARMSTE) and the South African Association of Science and Technology Educators (SAASTE). The PESG will compile a database of researchers and students involved in Physics Education Research and use it to draw more people to the SAIP.

- The PESG will in conjunction with the LOC of SAIP, arrange for the involvement of local schools and education related activities at SAIP conferences.
- The PESG proposes that there be greater marketing towards getting high school science educators onto SAIP

### **Lasers Optics and Spectroscopy (Chair: Dr. A Forbes)**

Committee:

Fund Raising: A du Plessis  
 Industrial Liaison: LR Botha  
 Secretary, Treasurer: H Schwoerer  
 Publicity, Membership, General: E Rohwer  
 Public awareness, Schools Liaison. D Esser  
 Student representative: G Bosman  
 Webmaster: P Neethling

### **SAIP 2008**

The specialist group again managed to secure sponsorship from the CSIR(NLC), the Laser Research Institutes and their respective OSA student chapters, Scientific Development and Integration, and the SAIP for student prizes.

Plenary speaker: Prof Zumbusch, sponsored by LRI and NLC.

### **OSA**

Two Optical Society of America (OSA student) chapters were established in South Africa, at NLC and LRI.

### **Photonics initiative.**

The Photonics Initiative of South Africa (PISA) is on course: A workshop between representatives of stakeholders will be held on the 5-6<sup>th</sup> August to generate a final strategy for PISA. The strategy will be presented to DST by the steering committee in September.

### **NLC**

The CSIR(NLC) continues to serve the lasers community through its rental pool program. The rental pool program feedback session was held on the Monday before the SAIP meeting. Courses on lasers and optics will be held by the NLC later this year.

### **The ALC**

An ALC course on an Introduction to Lasers was held in November 2007 in Stellenbosch. Another is planned for this year, funding is still pending. A successful ALC students meeting was held at Kariega during 2008.

### **International commission of optics (ICO):**

The application for membership of the ICO is in progress.

### **High power laser workshop:**

The planned high power laser workshop (NLC IThemba LABS, LRI) has received funding and will take place in January at STIAS in Stellenbosch. "Lasers and accelerators."

"Particle Acceleration and Generation of High Energy Radiation with High Intensity Lasers"

January 12 – 16, 2009, Stellenbosch Institute for Advanced Study

### **Nuclear, Particle and Radiation Physics (Chair: Dr. S. Mullins)**

Committee:

Secretary: Dr. Noel Jacobs (Univ. of Stellenbosch)  
 Industrial liaison: Prof. Simon Connel (Univ. of Johannesburg)

International liaison: Prof. Steven Karataglidis (Rhodes)

Webmaster: Mark Dalton (Wits)

Outreach: Dr. Gillian Arendse (iThemba LABS)

Student representative: J. Diener (Univ. of Stellenbosch)

Future projects: Prof. John Carter (Wits) and Dr. Rob Bark (iThemba LABS).

**Student Prizes:** 2 Ph.D. and 2 M.Sc. prizes will be awarded

**Nuclear Physics Schools, workshops etc.:**

- The 2008 iThemba School in Nuclear and Particle Physics organised by iThemba LABS Gauteng was held at the Skukuza in the Kruger National Park end of January.
- 23 Students from across South Africa attended the Joint Institute for Nuclear Research (JINR) Winter Practice in Dubna, Russia from 9 to 19 December 2007.
- An inaugural mini-symposium on gamma spectroscopy was held in April 2008, at iThemba LABS.
- A mini-symposium surrounding topics related to the Earth Antineutrino Tomography (EARTH) project was held at iThemba LABS (iTl) in February 2008. EARTH is an ambitious international research programme with the aim of mapping the location of the radiogenic heat sources in the Earth's interior. The programme in South Africa is a collaboration of the three Cape universities and iThemba LABS.
- The SA-CERN programme (headquartered at iThemba LABS) and chaired by Prof Cleymans (UCT) is a major South African initiative of a disparate consortium of researchers to leverage resources for access to world leading facilities. The programme consists of the following member institutes: iThemba LABS-UCT (ALICE); UJ-Wits (ATLAS); UKZN-Wits (ISOLDE) and Rhodes (nuclear and HEP phenomenology). A business plan has been submitted to DST and a governance structure is now finalised.

Beam scheduling at iThemba LABS was changed in the light of the need to reduce power consumption. This resulted in proton therapy sharing weekend beam time on the cyclotron with the nuclear physics research community. Proton therapy will on average run for one weekend per month. However researchers will on average have an additional shift of beam time per weekend.

- **Future events**

- ❖ September-October 2008: School on nuclear and particle physics (venue: JINR, Dubna, Russia)
- ❖ early January 2009: Workshop on lasers and nuclear physics (venue: iThemba LABS)
- ❖ late January 2009: Chris Engelbrecht Summer School focusing on Nuclear Astrophysics (venue: Stellenbosch Institute for Advanced Studies)
- ❖ February 2009: School on synchrotron physics (venue: to be announced)
- ❖ January 2010: iThemba LABS School on Nuclear and Particle Physics (venue: to be announced)

**General**

At the AGM it was decided that a committee should be constituted to actively engage with the Nuclear Industries Association of South Africa (NIASA), selected members of the nuclear industry and government to create an interface with the specialists group community. The committee will explore opportunities for research, training and funding for activities of the specialist group community, in the light of planned expansion of generation of electricity from nuclear power stations in South Africa. The committee is chaired by Prof. Simon Connel (UJ).

**Theoretical Physics (Chair: Prof. H. Geyer)**

Committee:

N Chetty

R De Mello Koch

WD Heiss  
A Muronga  
F Pettrucione  
FG Scholz  
M Noch Student representative

NITheP established during 2008.

Opening of NITheP in May 2008. Inauguration address delivered by Minister of Science & Technology, Mr Mosibudi Mangena; attended by Stephen Hawking and Nobel Laureates David Gross (who gave the inauguration lecture) and George Smoot

International and local advertisement: Prof F Scholtz the first Director; deputy-directors at nodes: Profs F Pettrucione (UKZN) and J Rodrigues (UWits); first 3 researchers and 4 postdocs appointed. Afman electronic structure workshop at AIMS after the conference, 14-25 July 2008; funded by NITheP, ICTP and Democritus Institute.

January 2008: Chris Engelbrecht Summer School on Soft Condensed Matter and Physics of Biological Systems – attended by 60 registered participants (seven lecturers); followed by week long workshop.

January 2009: Chris Engelbrecht Summer School focusing on Nuclei and Nucleonic Structures; some emphasis on Nuclear Astrophysics (venue: Stellenbosch NITheP/Institute for Advanced Study) details at [www.sun.ac.za/summerschool](http://www.sun.ac.za/summerschool).

## Appendix C: Student Liaison Report

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### **Minutes of the SAIP Student meeting held on the 10<sup>th</sup> July at the University of Limpopo at 16:00**

Chairman: Mr. G.W. Bosman

Co-opted Secretary: Mr. P.H. Neethling

1. The chairman welcomed everyone present to the meeting. No apologies were offered.
2. An attendance list was circulated. 47 delegates signed the list (20 members, 27 nonmembers).
3. The following items were added to the agenda under general:
  - a. The chairman was requested to explain the advantage of SAIP student membership.
  - b. The issue about the inferior recognition that poster presentations receive at the SAIP conference should be addressed.
  - c. MSc and PhD funding should be discussed – Sifiso Ntshangase
  - d. Student representation on the NRF – Lebogang Kotsedi
  - e. Evaluation of SAIP conference – feedback mechanism
  - f. Department of Science and Technology camps
  - g. PhD Project camps
4. The minutes of the 2007 meeting was ratified without correction (Proposed: Jacobus Diener, Second: Nicolas Erasmus).
5. There were no matters arising from the minutes of the 2007 meeting.
6. The chairman gave a brief overview of the proposals that have been put to the SAIP council from the SAIP student members over the last few years:
  - a. 2004: A request was put forward that students should have access to information about career and research opportunities. Subsequently a page with relevant information was linked to the SAIP website.
  - b. 2005: A request was put forward that students would like to opportunity to interact more with the invited plenary speakers. From the following year (2006) a special lunch was organized for students and plenary speakers where they could interact on a social level.
  - c. 2006: The issue about insufficient NRF funding (both in duration and quantity) was again raised. This is an ongoing issue which is raised nearly on an annual basis.
  - d. 2007: There were no serious issues raised at the 2007 meeting.
7. Dr Peter Martinez addressed the meeting, on behalf of Dr K Govender, on the upcoming international year of astronomy (2009). He also wished to express council's appreciation of its student members. The United Nations has proclaimed 2009 the international year of astronomy. This serves as the 400 year anniversary of Galileo first looking at the stars with a telescope. Events will be planned across the country, the details of which will be published on the SAAO website. All the students were urged to become involved in the various activities.

8. A database containing information about physics students is being developed. This is a NRF and SAIP initiative. The database will contain information about a student's qualifications, personal information, etc. The idea is that this information be made available to prospective employers. The questionnaire that will need to be completed is yet to be finalised.

9. Publishing of SAIP conference proceedings: Sampson Mamphweli. It was noted that there was an intake of manuscripts from the SAIP conference in 2007 for publication in the South African Journal of Science. This was a pilot program and was not repeated in 2008. Students are however encouraged to submit their research to the SAJS for consideration.

#### 10. General

a. The chairman explains that student membership of the SAIP provides access to the SAIP council (through the student chairman). This provides a mechanism where issues and complaints, pertaining to students, can be raised at council meetings.

b. The issue about recognition of poster contributions was raised. Most of the subgroups are quite large and therefore a large number of poster presentations are presented at the annual SAIP conference. Not enough emphasis is placed on the poster presentations and the feeling exists that poster presentations are inferior to oral presentations. The general feeling was that this can only be addressed if the location and the timing of the poster presentation are such that it encourages delegates to attend. Having refreshments available, as has been done in the past, can help address this problem. A further question regarding the mechanism for deciding whether a presentation will be an oral or a poster was raised. It was explained by the chairman that the decision lies with the management of the subgroup, and that the decision is often forced by the quantity of the oral presentations that are applied for.

c. The issue of NRF funding for post-graduate studies was raised. There was a general feeling that the funding was insufficient considering the costs of attending university. Clarity on the criteria used to award bursaries was also requested. There was also feeling that 3 years of support is insufficient, especially for obtaining a degree in experimental physics, since often delays (power cuts at national facilities where experiments are planned months in advance) can cause a degree to overrun this time. At least there must be a mechanism where extended funding is available due to unforeseen circumstances. There was also a suggestion that all PhD students, especially with the NRF's goal of increasing the number of graduating PhD students, should automatically qualify for a NRF bursary.

d. There was a request that students be represented at the NRF. This would improve transparency in the decisions from the NRF and will ensure that the NRF policies are in line with the expectations of the students. Feedback on this issue was requested.

e. A request was made for a feedback mechanism for students and delegates to evaluate SAIP conferences. Dr Peter Martinez stated that, on behalf of council, he appreciates the comments. He pledges that such a feedback mechanism will be designed and will be distributed through the chairman (GW Bosman). In this way issues can be addressed. He also requested suggestions on possible questions that can be placed on such a questionnaire.

f. DST camps: There are DST camps active in every province. The information on these camps is available on the DST website. There was a general complaint that people were finding it difficult to partake in these camps and that advertisement about the camps should be increased. Dr Peter Martinez

confirmed that the SAIP council is the correct channel to approach the DST on this issue. The role of the DST camps, to help high school learners, was also stated.

g. There was a request that the PhD Project camps be distributed in the various provinces. This would cut costs and allow more delegates to attend. It was suggested that a national camp be held bi-annually, which would allow everyone to attend one such camp during their post-graduate degree.

11. The chairman thanks everyone present and closed the meeting at 16:40.

# Appendix D: Audited Financial Statements

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## SOUTH AFRICAN INSTITUTE OF PHYSICS

### FINANCIAL STATEMENTS for the year ended 31 March 2008

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Notes to the financial statements	4

The financial statements set out on pages 2 to 4 are certified as a correct reflection of the financial state of the Institute for the year ended 31 March 2008

  
President

  
Treasurer

### ACCOUNTING OFFICER'S REPORT

I have determined that the financial statements are in agreement with the accounting records. No audit was required and none has been conducted, but I have adopted such procedures, and conducted such enquiries in relation to the accounting records as I considered necessary to ensure the correctness of the statements.

The financial statements do not reflect outstanding membership subscriptions, where a number of fees are still due.

The Accumulated Funds have not been apportioned to set aside funds for the provision of Bursaries and Prizes.

The budget for the year ended 31 March 2009 appears to be realistic.

  
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**Peter van der Merwe**  
B.A.(UCT) C.A.(S.A.)  
Port Elizabeth  
30 May 2008

## SOUTH AFRICAN INSTITUTE OF PHYSICS

INCOME & EXPENDITURE ACCOUNT  
for the YEAR ENDED 31 MARCH -

	Notes	2008 R	2007 R
<b>INCOME</b>			
Membership fees			
- Ordinary & Associate		66430	70985
- IoP Members		5640	5595
- Institutional members	1	6000	7600
		78070	84180
Total membership fees			
Conference Income (UP)	2	38441	0
Donations		225	200
Interest - on savings accounts		156315	56370
Sponsorships		8500	7000
		281551	147750
<b>TOTAL INCOME</b>			
<b>Less : EXPENDITURE</b>			
Affiliation fees -NSTF & NIASA		1500	450
Membership - IoP to UK		0	7884
Accounting fee		3000	2500
Bank charges		811	556
Conferences		0	15000
Honoraria		10500	8000
Meetings - Educational Committee		5011	0
- IUPAP		17760	0
Prizes - Astrophysics & Space Science		6000	4000
- Theoretical Physics		1000	1000
- Lasers & Photonics		3000	2500
- Applied Physics		3500	2500
- Nuclear		1000	1000
Secretary's expenses		2419	1983
Treasurer's expenses		215	971
Travel expenses		27727	23747
History of SAIP transferred to CD's		375	0
Website & Postnet box		990	990
Winterschool		7833	0
Sundries - engraving of medals		0	92641
		92641	73081
<b>SURPLUS for the YEAR</b>		188910	74669
Conference Income - refunds		0	13113
<b>ACCUMULATED FUNDS, b/fwd</b>		369183	281402
<b>ACCUMULATED FUNDS, c/fwd</b>		558093	369183

## SOUTH AFRICAN INSTITUTE OF PHYSICS

BALANCE SHEET  
at 31 MARCH -

	Notes	2008 R		2007 R
<b>ASSETS</b>				
Cash at bankers				
- Standard Bank SME a/c 1 759 593 2		32821		38719
- Stanlib Moneymarket A a/c 75178308		1746621		748103
- Stanlib Moneymarket B (CB van Wyk Trust)		56091		51117
		1835533		837939
Accounts receivable		0		8000
<b>TOTAL ASSETS</b>		<b>1835533</b>		<b>845939</b>
		=====		=====
<b>FUNDED BY -</b>				
<b>1. ACCUMULATED FUNDS</b>		558093		369183
(i) DST - Women in Physics	193013		514000	
Less : Costs	66970	126043	320987	193013
(ii) DST : Contribution to Physics Office	527000		0	
Less : Costs	28256	498744	0	0
Contribution to Physics 500	79000		0	
Less : Costs - K Meyer	25000	54000	0	0
Contribution to Physics Marketing		250000		0
(iii) SAASTA Grant	175750		175750	
Less : Payment - Theoretical Physics	0	175750	0	175750
(iv) FET Project	46491		89100	
Further contribution	98010		0	
Less : Costs	30690	113812	42609	46491
(v) CB van Wyk Trust - Donation	51117		50000	
Add : Interest to 31 March 2008	4974	56091	1117	51117
<b>CURRENT LIABILITIES</b>				
Accounts payable		0		7884
Provision - Accounting fee		3000		2500
		1835533		845939
		=====		=====

## SOUTH AFRICAN INSTITUTE OF PHYSICS

### NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 March 2008

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1. Institutional members : NNR  
NECSA
  
2. Conference Income : R  
Current year -  
2008 Pretoria University 38441
  
3. Future of Physics  
The Department of Science and Technology met its commitment to contribute R 856 000 to the development of initiative in this area
  
4. Accumulated Funds  
No decision has yet been made to set aside a portion of the Accumulated Funds for the provision of bursaries and prizes, which it is believed is the intention of the Institute.  
It is suggested that this be done