SOUTH AFRICAN INSTITUTE OF PHYSICS

23 24

ANNUAL REPORT

2023/2024

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PRESIDENT'S ADDRESS

Message from SAIP President

The SAIP was established on 7 July 1955 and has by necessity transformed in many ways to become the learned society and professional body it is today. Keeping our aim of "Advancing Physics, Transforming South Africa" in mind, operationally the institute is implementing a project-based business model to help ensure its long term financial sustainability. A vital component of this strategy is working within the government's District Development Model (DDM) policy framework, which enables the SAIP to expand its already successful and recognised Physical Sciences teacher development project, to support and expand its Women in Physics in South Africa (WiPiSA) project and to implement new projects, such as our Physics in My Village project. An experienced Fundraising and Stakeholder Engagement consultant has also been appointed to facilitate these initiatives.

In order to support the efficient communication of the SAIP's goals and achievements, including the impact it has had with its various projects, a "This is the SAIP" video was produced and is generating positive feedback for the clarity of its communication. Other communication channels include the Physics Comment magazine (PC magazine), published quarterly. The annual National Science Week events have afforded the SAIP the opportunity to produce several "Physics in our everyday life" documentaries as part of an ongoing outreach and science literacy programme. Participation in the Science Forum 2023 event organised by DSI provided a platform to engage with stakeholders on how Physics as a basic science can support the DSI Decadal Plan and promote innovative service delivery within the DDM.

The SAIP continues to run the annual South African Physics Olympiad and supports a very active WiPiSA programme of activities, especially during August of every year, with webinars and radio and social media outreach campaigns.

As part of its role as the voice of physics in South Africa, the SAIP supports the participation of South African physicists in international arenas. This includes active participation in many IUPAP commissions and its Executive Council and recently launching a Southern Africa Physics Network Consultative Forum in order to engage physicists in southern Africa on issues of common interest and concern and to strengthen these network connections. The GA of the IAU takes place in Africa for the first time in 2024 and the SAIP actively supported the bid for South Africa to host this meeting.

The SAIP was instrumental in the provision of a concept report to the Institute of Physics (IoP) in the UK that culminated in the recent announcement of the Africa-UK Physics Partnership programme that makes £5 million available for research grants under the broad themes of Energy and Climate.

Building on the above stated momentum, the SAIP looks forward to making an even bigger impact through its projects, and also looks forward to the International Year of Quantum Science and Technology 2025 and active participation in the International Decade of Sciences for Sustainable Development 2024-2033.

The SAIP is nothing without the people that support it and take it forward. I would like to sincerely thank the members of the Council, the staff at the SAIP office, the many volunteers and supporters that enable it to be successful in the pursuit of its aims and goals, and the members of the Institute which play an integral role in its successes.

Prof Rudolph Erasmus
President
July 2023 – July 2025

REPORT FROM THE OUTGOING PRESIDENT

I was honoured to have served as President of the South African Institute of Physics from 2021 to 2023. The SAIP prides itself as the voice of physics in South Africa. The institute nurtures physics talent through its activities, provides a platform to foster networking and pooling of expertise to promote physics in research, in education, in the economy and in society. This is achieved through our specialist Divisions, the Council, specialist committees and special projects.

I am pleased to say that the SAIP delivered on its mandate during my term. We fostered networking through our annual conference which is now a fixture in the physics calendar. Its enduring appeal was evident in that, despite the international health restrictions that curtailed in-person activities, we found a way to run our conference online. We helped nurture physics through meetings of our specialist Divisions, promoted physics nationally by providing Government with policy advice or by being involved in drafting policy needed to establish nationally relevant organisations. On this, I can single out our involvement in the establishment of the National Institute for Theoretical and Computational Sciences (NITHECs) as a successor of the National Institute for Theoretical Physics (NITHEP). Regarding our contributions to society, we have well-regarded and very active teacher and high school student development programmes.

We spent much time and effort on three key areas of operation. We formalised the publication practises for proceedings of our conferences and our institute magazine. We now have an editorial board to handle matters of the proceedings. This has helped to considerably reduce the period between submission and publication of papers. We worked on the SAIP as a brand with the aim to give the institute an unmistakable and professional identity. These are now visible in our various assets such as our logo, letterhead and the like. I am also pleased to report that we have established a new working relationship with the South African Council for National Scientific Professions (SACNASP) and have a healthy association with the South African National Qualifications Authority (SAQA).

One can always take one more step, walk one more mile. The success of the SAIP depends on the goodwill and support of its members and how far each one is willing to go to prop it up. I appeal to all members to be invested in the work of the institute to ensure this organisation remains effective and relevant. It is essential that we support our new President, Prof Rudolph Erasmus, as he aims to do just that. Thank you very much to everybody who helped make my term as President a pleasant one.

Prof Makaiko Chithambo
President
July 2021 – July 2023

EXECUTIVE SUMMARY

This report summarises the outreach and human capital development activities of the South African Institute of Physics (SAIP) for the financial year 1 April 2023 to 31 March 2024.

Physics is a fundamental basic science crucial in addressing global challenges such as climate change, energy security, clean water, unemployment, poverty, health, and food security. South Africa has great potential in utilising physics to benefit from its abundant natural resources, diverse ecosystem, and young and vibrant population. However, South Africa is not fully benefiting from this potential due to a shortage of human capital in sciences, engineering, and technology (SET). The South African presidency has identified the skills shortage as the second biggest impediment to economic growth after crippling power outages[1].

The current strategic focus of SAIP is to enhance the physics education pipeline, aiming to cultivate a broad and inclusive community of future physicists, scientists, and engineers. This community will harness the transformative power of science and technology to address socio-economic challenges and achieve Sustainable Development Goals (SDGs), all while driving the ambitious Agenda 2063 for a prosperous and sustainable future in South Africa.

During the period under review, SAIP promoted physics human capital development through various initiatives, including hosting five conferences that benefitted over 1,240 delegates, comprising academics, researchers, and students. Over 700 papers were presented, and conference proceedings were published from these events. These conferences provided platforms for local and international researchers to network and share ideas and for early career scientists to be mentored.

South Africa faces many challenges in science education, including a lack of competent science teachers and resources, resulting in poor pass rates in maths and science. This has led to school learners moving away from maths and science; for example, from 2014 to 2022 in the Western Cape, 26 schools phased out maths, and 23 schools phased out physical sciences due to no learner enrolments for these subjects[2]. To increase the pool of SET human capital, South Africa must increase the number of school learners enrolling and passing maths and science at school. The most effective way to address this at the school level is to equip teachers with the skills to competently teach science and the know-how to attract and keep learners in science. During the period under review, the SAIP continued with its well-established Further Education and Training (FET) Phase Teacher Development Programme, holding a total of 8 workshops that benefitted 518 physical science teachers from over 300 schools across seven provinces. The teacher development workshops continue to receive positive feedback from teachers and district officials.

In 2023, SAIP also started a project to support Early Childhood Development (ECD) teachers and practitioners. Research suggests that by age seven[3], most children have developed either a positive or negative attitude towards science education that will remain entrenched for life. Therefore, to grow the human capital base of science, it is essential to establish a lifelong love of science and technology early.

Outreach and public understanding of physics are essential for the human capital pipeline and for citizens to actively contribute to science and technology discourse. In the last financial year, SAIP outreach activities impacted over 20,000 people, including the public and school learners. During National Science Week 2023, SAIP produced and distributed a documentary on how physics can help address challenges related to energy, load-shedding, climate change, and rural development, reaching over 1,500 people via social media. Additionally, 15,000 Physical Science Essential Skills for Matric booklets were distributed to school learners.

SAIP also ran the South African Physics Olympiad (SAPhO) to identify and encourage young South Africans with abilities in physics. In 2023, 162 learners from 50 secondary schools across seven provinces participated in the SAPhO exam. The winner was Alexander Warrington, a Grade 12 learner from El Shaddai Christian School in the Western Cape.

The shortage of women in physics continues to be a challenge worldwide. SAIP, through the Women in Physics in South Africa (WiPiSA) programme, held various activities, including department lunches, webinars, and Women's Month initiatives. Through WiPiSA, 2,500 people were reached via online meetings and webinars, 350 through departmental lunches, and another 280 participated in the WiPiSA plenary talk and interactive sessions during the SAIP 2024 annual conference.

1 https://www.biznews.com/sa-investing/2023/11/06/skilled-workers-shortage-south-africa

2 https://www.iol.co.za/capeargus/news/some-western-cape-schools-have-phased-out-maths-and-physical-science-3d6bf243-6c09-4c6f-a5f2-ecaacb48776c:~:text=Over%20the%20period%20of%202014,participation%20in%20maths%2C%20Maynier%20said.

3 https://www.firstdiscoverers.co.uk/science-education-early-childhood/

ABOUT THE SAIP

The SAIP Overview and Strategic Focus

The South African Institute of Physics aims to become a world class, robust and inclusive learned society and professional body for physics in South Africa, advancing physics education, research and applications, ultimately contributing to socio-economic development for the country.

SAIP Mission
To be the Voice of Physics in South Africa

Value Proposition
To enhance physics education and research, cultivate an inclusive community of future physicists in South Africa, and harness the power of physics to effectively address social and economic challenges while achieving Sustainable Development Goals (SDGs).

Overall Aim
Advancing Physics, Transforming South Africa!

The SAIP's short—to medium-term strategic focus is to improve the physics education pipeline and build the next generation of physicists,, increasing the number of people who can pursue Science, Engineering, and Technology careers in South Africa. We aim to achieve this through:

- Addressing societal developmental needs such as challenges in the science education pipeline and shortage of women in physics.
- Providing a platform for various stakeholders to interact with the physics community in an organised way and benefit from physics.
- Capacity building for physics to contribute to addressing national socio-economic challenges in the nexus of food, water, energy and climate change, including the Sustainable Development Goals (SDGs).
- Cooperating with government, civil society, donors, private sector, academia, international community and the public in addressing physics-underpinned needs in key policies such as the National Development Plan 2030 (NDP2030), District Development Model (DDM), Science and Technology Decadal Plan 2022- 2032, African Union Africa Agenda 2063.

In the long term, the SAIP would like to see physics in South Africa at the centre of innovation. Physics is fundamental for any Science, Engineering and Technology progress; hence, it is commonly said, "The physics of today is the technology of tomorrow". For example, physics discoveries from the South Africa-CERN collaboration programme have led to advanced big data analytics, machine learning, and artificial intelligence technology transfer now applied in modelling the COVID-19 pandemic. The resulting COVID-19 dashboard has been used to provide valuable recommendations to policymakers in South Africa. Another example is South African blue skies physics research, which resulted in advanced image processing techniques developed for aurora research that are now applied in the early detection of wildfire smoke and have saved South Africa billions of rands in economic and environmental protection. Thus, physics discoveries in areas such as smart materials for sustainable energy, advanced imaging techniques, big data analytics, machine learning and artificial intelligence are the key cornerstones of the Fourth Industrial Revolution(4IR) and are at the frontiers of current technological research.

Thus, in summary, a vision for the future of Physics needs to be anchored in sustainable human capital development in problem-based training, coupled with accessible innovation-focused research infrastructure and programmes. It is the goal of SAIP for physics to make fundamental discoveries whose applications and exploitation will significantly address global challenges such as the Sustainable Development Goals (SDGs), pandemics such as COVID-19, enable full participation of South Africa in the fourth industrial revolution (4IR) and encourage world-class, cutting-edge research. SAIP envisions the above will be achieved through projects implemented in four strategic focus areas: Physics Education and Training, Physics Research and Innovation, Nurturing and Developing Professional Physicists and Transformation, Gender, Inclusivity and Diversity.

Ultimately we aspire to continuously improve our Non-for-Profit - Public Benefit Organisation - Business Model to achieve best practices in governance, project management, impact assessment, reporting, communication, volunteer and stakeholder-engagement, fundraising, stewardship of donor grants, and management of our assets, ensuring that we are well-positioned to achieve our vision.

COUNCIL AND LEADERSHIP

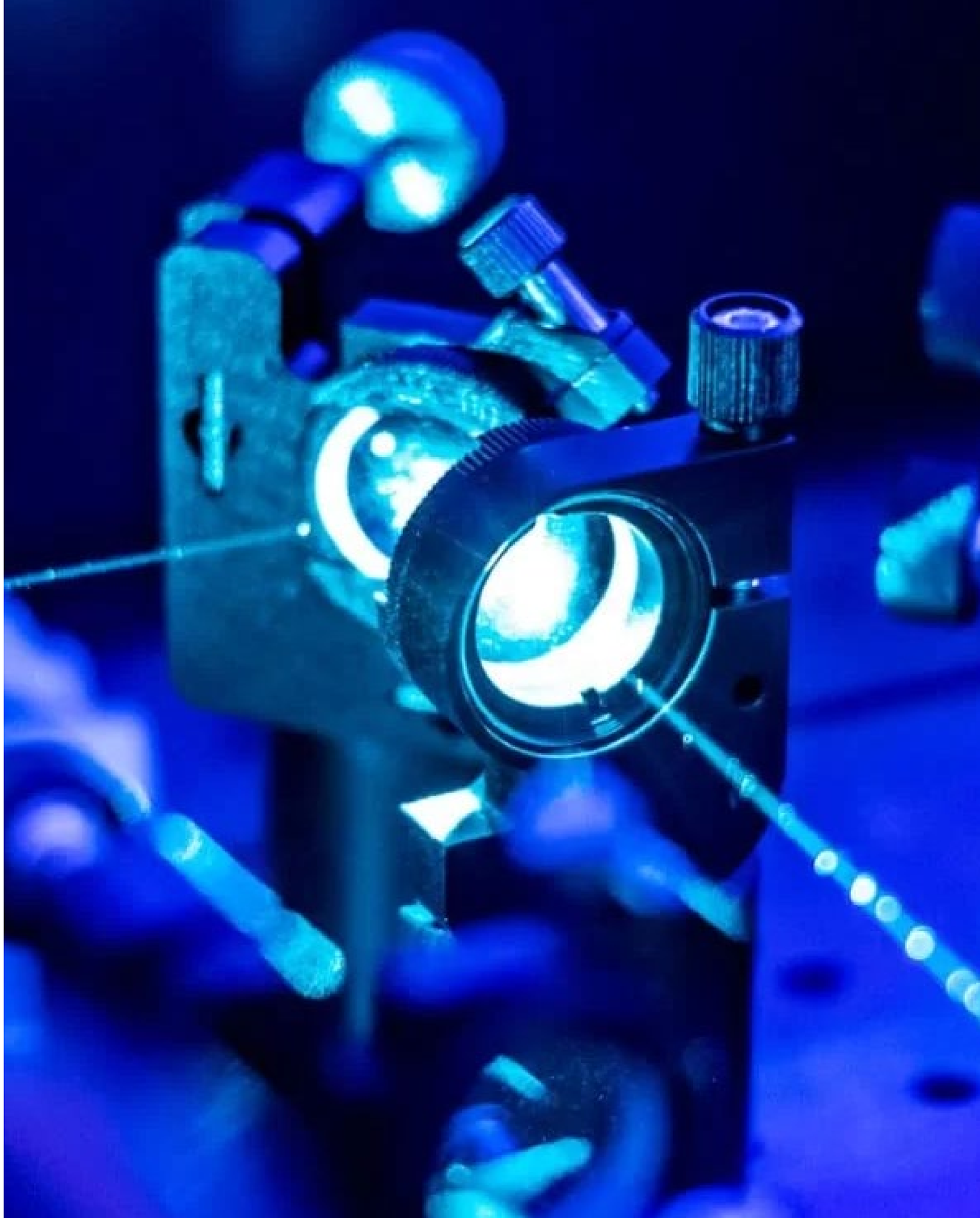
Meet the dedicated team driving the SAIP forward. This section introduces the newly elected Council for the 2023-2025 period, highlighting the roles and contributions of our executive committee and Council members. Together, they are committed to guiding the institute's strategic initiatives, ensuring effective governance, and championing the cause of physics across South Africa.

New Council Elected for 2023-2025

The SAIP members have elected a new Council to serve from July 2023 to July 2025. Prof Rudolph Erasmus, the incoming SAIP President, received the Presidential Mace from outgoing President Prof Makaiko Chithambo. The institute is administered by both a Council and an Executive Committee. The Executive Committee has the authority to make decisions on urgent matters that may arise between Council meetings.

Council Executive			
Prof	Rudolph Erasmus (WITS)	M	President
Prof	Regina Maphanga (CSIR)	F	Council Secretary
Prof	Ernest Van Dyk (NMU)	M	Treasurer
Prof	Makaiko Chithambo (RU)	M	Past- President & International Cooperation
Prof	Eric Maluta (UNIVEN)	M	President-Elect & Audit and Risk Chairperson
Dr	Brian Masara (SAIP)	M	Chief Executive Officer

Other Council Members			
Dr	Bongani Maqabuka (UJ)	M	Industrial Liaison
Prof	Alan Cornell (UJ)	M	Divisions and Forum Rep
Dr	Rosina Modiba (CSIR)	F	Outreach & Public Understanding of Physics
Prof	Deepak Kar (WITS)	M	Awards and Standards
Dr	Edwin Mapasha (UP)	M	Physics Comment Magazine
Dr	Trisha Salagram (UCT)	F	Physics Education
Prof	Du Toit Strauss (NWU)	M	Conferences & Astronomy liaison
Mr	Cade Peters (WITS)	M	Student Rep on Council



ACTIVITIES AND HIGHLIGHTS

Human Capital Development

Dive into the initiatives that lie at the core of SAIP's mission to contribute to a thriving community of physicists, scientists, and engineers. This section details our efforts in hosting conferences, workshops, and professional development activities, all designed to enhance skills, promote collaboration, and inspire the next generation of scientific leaders.

SAIP Annual Conference

University of Zululand, 3-7 July 2023

The SAIP annual conference is the main event for the physics community in South Africa. Due to COVID-19 restrictions, the conference has been held virtually for the past three years. However, in 2023, the SAIP decided to return to an in-person event. Key highlights of the conference include:

Attendance: 339 delegates attended the conference.

Presentations: 315 papers were presented.

Winter Schools: The event started on 3 July with two Winter Schools, delving into Nanotechnology and Quantum Technology.

Publications: The Proceedings of the 67th Annual Conference of the South African Institute of Physics (SAIP2023) with ISBN: 978-0-7961-3774-6 have been published. The Proceedings of SAIP2023 will only be available electronically. To access the Proceedings page, please browse to SAIP2023 Proceedings.

Physics in Industry Day: A special day was held to impart innovation and commercialisation skills to physicists.

Awards: A Silver Jubilee Medal was awarded to Dr. Isaac Nape from the University of the Witwatersrand, Johannesburg, for his outstanding research career in the fields of photonic and quantum computing.

Physics in Industry Day

University of Zululand, 3-7 July 2023

A Physics in Industry Day was held to promote innovation and the commercialisation of research results by the physics community. Mr Thabang Jase from the National Intellectual Property Management Office (NIPMO) gave a talk on Intellectual Property, Innovation management, and the role of NIPMO in innovation support in South Africa. He focused on commercialising prototypes developed in laboratories and how NIPMO assists academics in this regard. Prof Pragasen Mudali (UniZulu) shared a talk on Innovation and Technology transfer, whereas Prof Igle Gledhill (University of Witwatersrand) delivered a talk on 'Physics in Business: Survival in the Jungle'. Prof Maaza also presented the commercialisation of nanotechnology-based findings that covered carbon capture, fertiliser production, and skin products from indigenous knowledge-based plant nano-extracts.

SAIP 2023 Fellow and Silver Jubilee Awards

University of Zululand, 3-7 July 2023

The event serves as a platform for the exchange of cutting-edge research. In addition, it provides an opportunity to recognise and celebrate the outstanding achievements of students at various academic levels (Hons, MSc, and PhD) across all seven SAIP divisions. These awards served as a testament to SAIP's commitment to nurturing talent and pushing the boundaries of scientific exploration.

The 2023 SAIP Silver Jubilee Medal was awarded to Dr. Isaac Nape from the University of the Witwatersrand, Johannesburg, for his outstanding research career in the fields of photonic and quantum computing, where his work is concentrated on exploring higher-dimensional quantum information processing using structured light and harnessing it as a resource for computing. In addition, he also focuses on quantum searching and optimisation algorithms as tools for solving inference and inverse problems in physics and other related fields.

Prof. Igle Gledhill was inducted as a Fellow of the SAIP in recognition of her role in physics development in South Africa. She has served nationally and internationally in various panels and task teams on physics for development. She specialises in Computational Fluid Dynamics (CFD), especially for transonic flow, predicting aerodynamic loads on accelerating bodies, and predicting safe store release from aircraft, wind tunnels and other predictive methods, discrete element methods, properties of non-linear optical materials, and modelling of air combat and air warfare.

9th South African Conference on Photonic Materials (SACPM 2023)

Nombolo Mdluli Conference Centre, Kruger National Park, May 2023

The successful series of bi-annual conferences focusing on photonic materials continued in 2023, four years after the last conference in 2019, due to the COVID restrictions. The 9th South African Conference on Photonic Materials (SACPM 2023) was held in May at the Nombolo Mdluli Conference Centre at the Skukuza Rest Camp in the Kruger National Park. The conference attracted a record number of delegates from many local institutions and from abroad, including plenary and invited speakers from the UK, Germany, France, Italy, Sweden, Norway, and India. The conference allows postgraduate students to contact and discuss their research with world-leading researchers in their field in an informal setting. The topics covered a wide range of photonic materials, including photovoltaic and solar cell characterisation, upcoming materials that could replace current materials in the field of PV, luminescent materials, wide band gap materials (such as Ga2O3, ZnO, GaN) used for UV detectors, and transparent conducting coatings. There were also presentations on the electrical properties and the formation and identification of semiconductor defects.

Attendance: 121 delegates attended

Presentations: 87 papers were presented

3rd African Conference on Physics (ACP2023)

Nelson Mandela University's George Campus, George, South Africa, 25-29 September 2023

The African School of Physics (ASP) is a hub for aspiring African physicists, offering a unique blend of theoretical knowledge and practical skills. The African Conference on Fundamental and Applied Physics (ACP) aims to support its APS alumni's academic growth and broaden participation internationally. ACP 2023 was organised as a hybrid event; over 601 delegates attended the conference. The conference exemplified the spirit of innovation and collaboration. From delving into the depths of particle physics to venturing into the cosmic mysteries of astrophysics, this unique event offered a platform for experts to discuss subjects as diverse as artificial intelligence, quantum physics, earth science, and accelerator physics. Committed to inclusivity, ACP 2023 also championed the voices of young physicists and women in physics, acknowledging the importance of diversity in scientific pursuits. On the evening of September 25, 2023, an event on early career physicists was organised as a beacon of intellectual exchange aimed at revitalising interest in physics amidst the widely discussed decline.

You can find the SABC report of the event here: https://www.youtube.com/watch?v=zCxMFTx8Ym4

Other SAIP Supported Human Capital Development Events

The SAIP also supported the organisation of the following events:

- South African Sustainable Energy Conference (SASEC2023), which was attended by 101 delegates who presented 65 papers.
- The African Light Source Conference (AfLS2023) virtual event which was attended by 112 delegates who presented 85 papers
- Monthly Biophysics in Africa webinars are attended by an average of 20 delegates per month.

Teacher Development Initiatives

Discover SAIP's unwavering commitment to elevating science education through comprehensive teacher development programs. This section covers our various workshops and training sessions aimed at equipping physical science teachers with the skills and knowledge necessary to ignite a passion for science in their students.

The SAIP's current strategic focus is on improving the physics education pipeline. In line with this strategy, the SAIP is implementing projects such as Physics Teacher Development to enhance the skills of physics teachers. By providing training and professional development opportunities for physics teachers, we can ensure they have the resources and knowledge necessary to teach and inspire their students effectively.

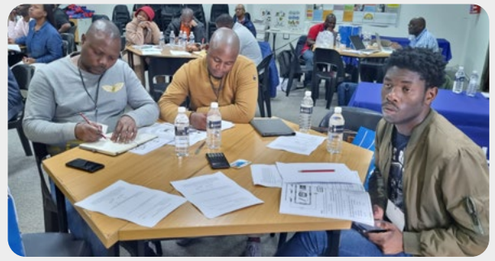
The SAIP Physics Teacher Development is accredited by the South African Council of Educators (SACE), the statutory professional body for educators in South Africa. Hence, teachers accrue Continuous Professional Development Points (CPD) whenever they attend the SAIP Teacher Development workshops. The workshops were made possible through financial support from the NRF-SAASTA and other collaborators.

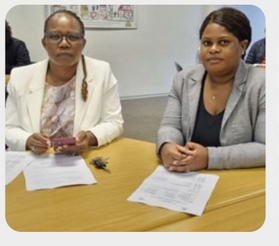
A total of 8 workshops were held, benefitting 518 physical science teachers from over 300 schools across seven provinces, including Gauteng, Free State, Limpopo, Mpumalanga, Western Cape, KwaZulu Natal, and Eastern Cape. The teacher development workshops continue to receive positive feedback from teachers and district officials. For example, recent feedback from a teacher in George, Western Cape, indicated that the workshops are critical for competence development. Due to a shortage of physical science teachers, they are teaching physics despite only studying chemistry at university. Additionally, virtual experiments help teachers from schools with no laboratory facilities, giving them the ability to conduct experiments and develop essential IT skills for future work.

SAIP2023 UNIZULU Teacher Workshop

University of Zululand
4 - 6 July 2023

In collaboration with NRF-SAASTA, the University of Zululand, and the KZN Department of Basic Education, a three-day face-to-face SAIP2023 Teacher Development Programme was held, attended by 42 educators and their district officials.





Vhembe Teacher Development Workshop

Vuwani Science Centre, Limpopo
24 - 26 July 2023

In collaboration with SAASTA, a Physical Science teacher development workshop for the Vhembe District was held, attended by 200 teachers. This year, virtual experiments were also introduced.

Western Cape George Teacher Workshop

Inkcubeko Youth and Science Centre, George
22 - 24 February 2024

In collaboration with the Inkcubeko Youth and Science Centre, a three-day in-person teacher development workshop covering physical science and maths topics was conducted. 25 teachers and their Senior Science Education Specialists attended the training.

UJ-SAIP Teacher Workshop

University of Johannesburg
25 - 27 March 2024

The workshop was attended by 70 physical science teachers and their district officials.

University of Johannesburg
Soweto Science Centre
3 - 6 July 2023

In partnership with NRF-SAASTA, the University of Johannesburg (UJ), and the Gauteng Department of Education (GDE), a teacher workshop was conducted with 80 educators in attendance.

SAIP 2023 - EC Teacher Workshops

Albertina Nontsikelelo Sisulu Science Centre, Cofimvaba
17 - 21 July 2023

In partnership with the Department of Science and Innovation (DSI) and NRF-SAASTA, a five-day interactive Teacher Development Training session in Physical Science was conducted for the Eastern Cape Province. 60 educators and DBE officials attended.

SAIP/ NRF-SAASTA Gauteng Teacher Workshop

Gauteng
3 - 5 October 2023

The South African Agency for Science and Technology Advancement (SAASTA) collaborated to host an educator development workshop. The workshop aimed to provide professional development for Mathematics, Physical Sciences, and Natural Sciences educators. A three-day workshop focusing on physical sciences for grade 10-12 educators was facilitated, with 22 educators attending the physical science sessions.

The Eden and Central Karoo District Teacher Workshop

George, Western Cape
13 May & 29 July 2023

A total of 19 educators with 10 years or less experience teaching physical sciences at the grade 12 level attended the workshop.

Science Skills Accelerator Programme for Early Childhood Development (ECD) Educators/Practitioners

The SAIP has started developing a new programme for ECD learners and teachers. This project aims to enhance the science skills of ECD educators/practitioners, empowering them to channel the innate curiosity of kids' curious minds for scientific discovery and enthusiasm towards the lifelong love of science and related careers. The overall goal is to cultivate a broad and inclusive community of future scientists and engineers in South Africa who will harness the power of science and technology to address socio-economic challenges and Sustainable Development Goals (SDGs).

The skills problem emanates from the school level up to the tertiary level. South Africa faces many challenges in basic education, including a lack of competent science teachers and a lack of resources, resulting in poor pass rates in maths and science. This has resulted in school learners moving away from maths and science; for example, from 2014 to 2022 in the Western Cape, 26 schools phased out maths, and 23 schools phased out physical sciences due to no learner enrolments for these subjects[4]. This further worsens the SET skills pipeline. In addition, the SET skills shortage has been identified by the South African presidency as the second biggest impediment to economic growth after crippling power outages[5].

To increase the pool of SET human capital, South Africa must increase the number of school learners enrolling and passing maths and science at school. The most effective way to address this at the school level is to equip the teachers with skills to competently teach science and the know-how to attract and keep learners in science.

Research[6] suggests that by age seven (7), most children have developed either a positive or negative attitude towards science education that will remain entrenched for life; hence, there is a need to catch them young. Thus, to grow the human capital base of science, engineering and technology, it is essential to establish a lifelong love of science and technology early. We must start at ECD to enhance the innate curiosity of kids' curious minds to foster a life-long love of science. In 15 to 20 years, the ECD class of today will be scientists and engineers. Hence, there is a need to target ECD educators and practitioners. However, research in South Africa by James et al. (2019)[7] found that ECD educators/practitioners skip and avoid teaching science even though it is included in the ECD curriculum. The research also highlights the following challenges.

- ECD and foundation phase practitioners/ teachers are not science specialists; however, they are expected to teach science.
- The curriculum does not unpack topics for the science sections, and no clear guidelines exist regarding what and how science should be taught at ECD.
- The curriculum places little emphasis on science, and consequently, teachers appear not to see its importance either; teachers focus on three subjects: life skills, maths, and home language.

The SAIP started the development of a Science Skills Accelerator Programme for Early Childhood Development (ECD) Educators/Practitioners that addresses the above-mentioned challenges

Outreach & Public Understanding of Physics

Discover the impactful outreach and public engagement activities led by the SAIP. This section showcases our efforts to expand public understanding and appreciation of physics, highlighting key events and initiatives aimed at promoting scientific literacy and engaging the community in meaningful science discourse. Outreach and public understanding of physics are crucial for the human capital pipeline and for citizens to actively contribute to science and technology discussions. In the last financial year, the SAIP's outreach activities reached over 20,000 people, including members of the public and school learners.

National Science Week 2023

In celebrating National Science Week (NSW) 2023, the SAIP developed a mini-documentary on how physics can help us address energy, load-shedding, climate change, and rural development challenges. The documentary engaged the public on how physics contributes to improving the nexus of Energy, Water, Climate, and Food Security. In addition, it helps the public and school learners understand how physics is improving the quality of life and sustainable development of our rural and previously disadvantaged communities by providing clean water, clean energy and supporting agriculture. ***NSW 2023 activities reached over 1,500 people on social media platforms.***

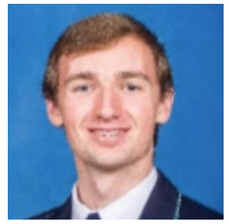
The mini-documentary is available here:

or click HERE

South African Physics Olympiad 2023

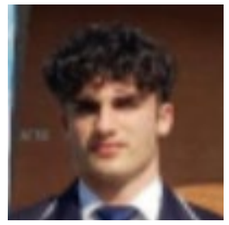
South Africa, like every other country in the world, has amongst its youth a latent talent that needs to be identified, nurtured and monitored to allow them to reach their full potential. There are talent scouts for potential sportsmen and women, so why not for Mathematics and Sciences? After all, our future lies in education and a technologically based economy. Identifying future scientists and engineers is essential and SAPhO is one pathway to success. SAPhO is hosted by the South African Institute of Physics with the aim of identifying young South Africans with ability in Physics, in the hope that these students will continue to study Physics at tertiary institutions and Universities within South Africa. This is the only Physics Olympiad registered with ASTEMI Olympiads and Competitions in the country and anyone excelling in this carries lasting prestige with them. ASTEMI is the Association of Science, Technology Engineering, Mathematics & Innovation that registers STEMI Olympiads & Competitions. The Olympiad was administered as a hybrid Olympiad, written partially online. ***162 learners selected from 50 Secondary schools from 7 provinces (EC, GP, KZN, LP, NW, MP & WC) wrote the SAPhO 2023 exam.***

This year's SAPhO Top 3 Award Winners are:



Alexander Warrington: Gold
Grade 12, El Shaddai Christian School, Western Cape

Melissa Muller: Silver
Grade 12, Rhenish Girls' High School



Ilan Ben-Attar: Bronze
St Alban's College, Pretoria, Gauteng

For the full press release, visit here:

or click HERE

Essential Skills for Matric

The SAIP continued distributing the Essential Skills for Matric Resources in 2023/24. Introduced in 2020, this series aids teachers and pupils in developing crucial skills identified as lacking in Matric Annual Diagnostics reports. The material includes 16 hours of downloadable physics videos featuring dynamic presentations by Dr Derek Fish, covering theory, exam questions, simulations, and inspiring interviews. These resources are also available in hard-copy booklets and USBs, with 15,000 booklets distributed.

For more information and free resources, visit here.

or click HERE

ACP 2023 Outreach in Thembalethu, George

On September 30, ACP 2023 conference delegates held an ATLAS masterclass for 15 learners and 5 educators at Inkcubeko Science Centre in the township of Thembalethu, in George.

Science Forum 2023 Engagement

The South Africa Institute of Physics (SAIP) had a successful engagement session at the 2023 Science Forum on Thursday, 7 December, at the CSIR Sports Club, Pretoria. The Science Forum South Africa 2023 took Place from 6 – 8 December at the CSIR International Convention Centre, Pretoria, South Africa. The session was attended by about 24 people and had 8 speakers. The session was aimed at igniting conversations and getting stakeholder inputs on how Physics as a Basic Science can support DSI - Decadal Plan Societal Grand Challenge 2 on “Education and Skills Development” by addressing Physics-Underpinned Education and Skills Development needs identified by District Development Plans (DDM) through the DDM pillar on “People Development and Demographics”, hence ensuring physics as a basic science contributes to socio-economic development and government service delivery starting from the district level up.

Women in Physics SA (WiPiSA) Activities

The Women in Physics South Africa (WiPiSA) had a dynamic and engaging year, marked by various activities such as department lunches, webinars, and initiatives for Women's Month. WiPiSA's commitment to fostering a supportive community and promoting the role of women in physics was showcased through these highlights. The activities were conducted and promoted on different media platforms. Over 500 people participated in different activities in person, and an additional 2,500 were engaged through social media and webinars. This section celebrates the initiatives led by Women in Physics South Africa (WiPiSA) and the programs and activities dedicated to supporting and promoting the role of women in physics. From webinars to mentorship events, you can discover how WiPiSA is fostering a supportive community, encouraging mentorship, and highlighting the contributions of women in the field of physics.

WiPiSA Webinars

WiPiSA's webinar series, a crucial component of its mentorship programme, encompasses a variety of topics aimed at personal and professional development. The series features expert speakers and consistently attracts numerous participants. Key webinars include:

- **Women's Month Webinar:**
  "Mentorship in the Science Space"
  - **Guest Speaker:** Prof Refilwe Nancy Phaswana-Mafuya
  - **Focus:** Exploring mentorship opportunities and challenges for women in science.

- *"NRF Funding Opportunities for Emerging Researchers"*
  - **Guest Speaker:** Ms Edith Shikumo from the National Research Foundation
  - **Focus:** Providing insights into funding opportunities available through the NRF for emerging researchers.

Women's Month Social Media Campaign

During Women's Month, WiPiSA introduced initiatives like 'Physics and I' and 'Woman to Woman':

- **Physics and I:** Celebrated women with a background in physics, exploring how physics has influenced their professions.
- **Woman to Woman:** Focused on women-to-women supervision and mentorship in science and research fields.
- **Mentorship Event:** Organised to explore the impact of mentorship on career advancement in the sciences.

Celebrating Women in Physics Documentary

As we celebrated Women's Month, the SAIP shared a short five-minute documentary highlighting and celebrating women in physics. Few girls currently take physical science, resulting in few women in physics-related careers. The short documentary aims to create awareness among learners, teachers, and the general public that women can also have careers in physics.

To view the short five-minute documentary, please scan the following QR Code to watch the documentary.

or click HERE

WiPiSA Lunches

To meet its core objectives, WiPiSA initiated departmental lunches across universities and national facilities in South Africa. These lunches are designed to bring together women in physics, including academics, those in leadership roles, school learners, and university students. The aim is to enjoy a meal together while encouraging interest in studying physics, fostering networking, and discussing the challenges faced by women in physics.

WiPiSA representatives employ innovative approaches to engaging women and girls in discussions about physics. For example, at the University of Johannesburg, they hosted a talk show that was viewed by over 1,100 people. You can watch it here.

or click HERE

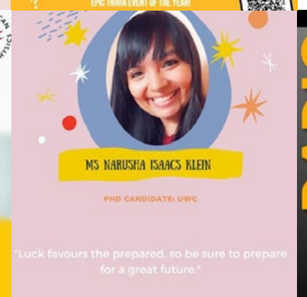
In total, 350 participants from seven different universities and national facilities took part in these lunches. The events received positive feedback from the schoolgirls who attended, as exemplified by the feedback from SANSA events.

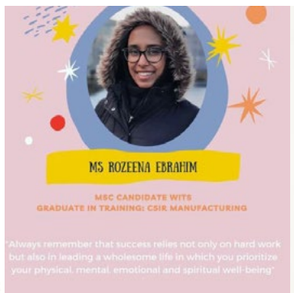
WiPiSA Public Engagement

WiPiSA's secretary, Dr Joyful Mdhluli, participated in various public engagement events, including a panel discussion at the virtual APS Satellite March Meeting. The discussion focused on the experiences of physicists in their home countries, addressing topics ranging from the pleasant aspects of physics research to strategies for increasing interest among young people

Dr Mdhluli also presented a country poster at the 8th International Conference on Women in Physics and functioned as a mentor at events such as "Stay Awake" for the Girls in Robotics program. Her involvement in the "Girls in STEM Workforce of the Future" career talk and the WiPiSA luncheon at the University of Western Cape highlighted her commitment to promoting STEM careers among young women.

WiPiSA's chairperson, Dr Katekani Shingange, presented a country poster at the 8th International Conference on Women in Physics, highlighting the achievements and challenges for WiPiSA over the past year.





Impact Summary

WCED and The Eden and Central Karoo Education District 2023 Teacher Workshop

13 May & 29 July 2023

Activity Goals
To enhance the content and pedagogical skills of educators with 10 years or less experience in teaching physical sciences at the grade 12 level.

Reach/Participants
19 Educators

Project Impact Highlights
Mr Keenan Erasmus, who is a Chief Education Specialist for Physical Science in the ECKED region, wrote,

"It opened our minds on how physics should be taught in class in order to get our learners thinking again in the classroom instead of just giving over content.

"The pitch of the content delivered was once again University level (which you need if you are a grade 12 educator) but was well brought into how it can be used to strengthen the CAPS curriculum. The attendees thoroughly enjoyed the workshop."

UJ-SAIP Content & Methodology Teacher Workshop

3 - 6 July 2023

Activity Goals
The workshop was part of the SAIP 2023 Annual Conference activities and honouring the SAIP-UJ MoA.

Reach/Participants
80 Educators

Project Impact Highlights
Prof Sam Ramaila, who is the Teacher Dev Project Coordinator, mentioned that,

"It was announced during the SAIP-UJ teacher workshop opening ceremony that the Johannesburg Central District demonstrated excellent improvement in NSC results. The GDE officials attributed this excellent improvement to the SAIP Teacher Development Project as well as the provision of Essential Skills Support Material."

SAIP2023 UNIZULU July Teacher Workshop

4 - 6 July 2023

Activity Goals
The workshop aimed to address the skills gap identified in the Matric Diagnostics Report and general misconceptions in physical science regarding the identified topics.

Reach/Participants
42 Educators

Project Impact Highlights
Teachers were excited about the workshop, and the DBE provincial officials asked for a follow up workshop that will cover most regions.

SAIP 2023 - EC July 2023 Teacher Workshops

17 - 21 July 2023

Activity Goals
The workshop's mission was to equip Physical Science Teachers with skills and boost their confidence in teaching Physical Science topics.

Reach/Participants
60 Educators

Project Impact Highlights
The workshop was an interactive 5-day programme that included physical science experiments.

Vhembe July 2023 Teacher Development Workshop

24 - 26 July 2023

Activity Goals
The SAIP's goal is to improve physics education and teachers' skills in teaching difficult concepts in physical science in Vhembe district, Limpopo province. This was a follow-up to the February 2023 workshop.

Reach/Participants
200 Educators

Project Impact Highlights
- Teachers in the Vhembe district are equipped with the knowledge and skills needed to improve the province's physics pass rate.
- The teachers had the opportunity to attend the last day of the workshop at Vuwani Science, which was dedicated to physical science experiments.

SAIP/ NRF-SAASTA Gauteng Teacher Workshop

3 - 4 October 2023

Activity Goals
The objective of the workshop was to provide support for educators by offering professional developmental content for Physical Sciences.

Reach/Participants
22 Educators

Project Impact Highlights
The facilitators chose the physical science topics based on the matric diagnostic report and also offered physical science experiments.

Western Cape George Teacher Workshop

22 - 24 February 2024

Activity Goals
The workshop was in collaboration with the Inkcubeko Youth and Science Centre covering physical science and maths topics.

Reach/Participants
25 Educators

Project Impact Highlights
The topics covered included maths and virtual experiments in addition to physical science topics

WiPiSA Lunches

29 February 2024

Activity Goals
This is a platform for women to empower each other through the difficulties they face in life while encouraging them to pursue physics-related careers.

Reach/Participants
350 people

1100 via an online talk show

Project Impact Highlights
WiPiSA had 7 departmental lunches reaching over 350 participants ranging from established researchers, young emerging researchers, and undergraduate students.

Women's Month 2023

August 2023

Activity Goals
WiPiSA ran a campaign to celebrate and honour the stories of remarkable women who embarked on a journey through Physics

Reach/Participants
The posts had wide impact

Project Impact Highlights
The campaign was well-received on social media

WiPiSA Webinars

17 August 2023

Activity Goals
In the Women's Month Webinar titled "Mentorship in the Science Space", the guest speaker was Prof Refilwe Nancy Phaswana-Mafuya. Title 'Mentorship in the Science Space'

Reach/Participants
30 people connected on the Zoom platform

20 people reached through social media

Project Impact Highlights
The attendees receive a link to download the Research Mentorship Book authored by the guest speaker for free.

WiPiSA Webinar

29 February 2024

Activity Goals
WiPiSA hosted a webinar titled "NRF Funding Opportunities for Emerging Researchers" with Ms Edith Shikumo from the National Research Foundation as a guest speaker.

Reach/Participants
Over 26 people connected on the Zoom platform.

Project Impact Highlights
NRF is an independent statutory body established through the National Research Foundation Act (Act No 23 of 1998). As a government-mandated research and science development agency, the NRF funds research, the development of high-end human capacity and critical research infrastructure to promote knowledge production across all disciplinary fields

Recognition and Awards

The South African Institute of Physics (SAIP) takes pride in recognising and celebrating the outstanding achievements of individuals who have made significant contributions to the field of physics. Through various awards and honours, SAIP acknowledges excellence in research, education, and service to the scientific community. This section highlights the prestigious awards presented to exceptional physicists, showcasing their dedication and impact in advancing physics both nationally and internationally. From lifetime achievements to early-career accomplishments, these recognitions serve as a testament to the talent and hard work within the South African physics community.

Prof Gledhill Inducted as a Fellow of SAIP

Prof Igle Gledhill has been inducted as a Fellow of the SAIP in recognition of her contribution to the development of physics in South Africa. Fellows are individuals honoured by the Institute for their excellence in Physics, Science, Industry, or the Governance of Science in South Africa, and they are elected as per the rules set in the By-laws. Fellows are required to pay a membership subscription fee as prescribed in the By-laws. Fellows in good standing have the privilege of using the title of Fellow of the South African Institute of Physics or FSAIP. The specific benefits for Fellows are outlined in the By-laws.

She has served nationally and internationally in various panels and task teams on physics for development. She specialises in Computational Fluid Dynamics (CFD), especially for transonic flow, predicting aerodynamic loads on accelerating bodies, and predicting safe store release from aircraft, wind tunnels and other predictive methods, discrete element methods, properties of non-linear optical materials, and modelling of air combat and air warfare.

Motivation:
Prof Gledhill is a Visiting Adjunct Professor in Flow Physics at the University of the Witwatersrand, Johannesburg. She did her postdoctoral work at the University of California, Los Angeles, on thermonuclear fusion and at Stanford University on Space Shuttle physics. For 30 years, she specialised in transonic computational fluid dynamics at the CSIR. She contributed to multidisciplinary collaborations, including rational drug design, ocean engineering, and mine safety. In many of these collaborations, she participated in a leadership role.

Throughout her career, she has been extensively involved in service to the science community, with a consistent emphasis on the Governance of Science. During her time at the CSIR (1987-2017) as Principal Researcher, she was recognised for her scientific achievements. She received the CSIR Defencetek “Assegai” Award for Transformation (2004) and the CSIR Aeronautic Systems Excellence Award for Contribution to Diversity (2008). She was a member of the CSIR Strategic Research Panel (2004-2010), being Chair from 2008-2010, and she served on the CSIR Quality Assurance Panel on Research Career Ladders.

At a national level, she participated in two seminal reviews that continue to guide the physics community. In 2003 she was a member of the International Panel on “Shaping the Future of Physics in South Africa”, appointed by the DST/NRF/SAIP. Implementation of recommendations from this review report, published in March 2004, resulted in a much-needed revitalisation of physics in South Africa. The SA physics community is still experiencing the benefits of this report.

Prof Gledhill was a member of the Planning Committee of the Review of Undergraduate Physics Teaching and Learning at Public Higher Education Institutions in South Africa, undertaken jointly by the CHE and the SAIP in 2012 and 2013. She also participated in implementing the findings of this review by visiting 13 different Departments of Physics in 2014 and 2015.

More recently, she was the Convenor of the Expert Working Group appointed by the DSI/NRF to build the science case for reconfiguring NITheP into NITheCS and was one of the

principal authors (with Prof F Petruccione) of the Roadmap for Transitioning from NITheP to NITheCS, published in November 2020. This transition process is currently underway, and Prof Gledhill made a strategic contribution to the SA Physics community here.

Prof Gledhill has an extensive and long-running record of involvement in the promotion of Women in Physics, both nationally and internationally. She is a member of the IUPAP Working Group 5 (WG5) on Women in Physics (2006 to present), including being Chair 2014-2017. She served on the Organising Committees for 5 IUPAP International Conferences on Women in Physics, including Chairing the Local Organising Committee when this conference took place in Stellenbosch, South Africa, in 2011.

From 2016 to 2021, she served on the Executive Committee of the International Council of Science Collaborative Project, “The Gender Gap in Science”. This was a collaboration of 8 Scientific Unions: UNESCO, GenderInSITE and the Organisation for Women In Science for the Developing World. She convened an African Workshop on this project in 2017. She served as a director of the Final Conference of the Project at the Abdus Salam Institute for Theoretical Physics, Trieste, Italy, in 2019. The outcomes of this project were published as a book, providing up-to-date information on the current Gender Gap in Mathematical, Computing and Natural Sciences in an international context.

Prof Gledhill has a long association with the South African Institute of Physics. She was a Council Member for 10 years, President from 2013-2015, and member of the SAIP Working Group on Women in Physics in South Africa from 2005-2017, taking part in this in various capacities. She contributed to the establishment of professional designations for physicists, an important development that aligns South Africa with international practice.

She was appointed by the Minister of Science and Technology in 2012 as a member of the South African Council for Natural Scientific Professions, where she served until 2021, and served on the Strategic Projects Committee.

She is currently Vice President for International Relations and Scientific Affairs of the Network of African Science Academies. As a member of the Council of the Academy of Science of South Africa (2020 to present), she has co-authored several ASSAf reports.

In 2022, she was appointed a member of the American Physical Society (APS) Committee on International Scientific Affairs. From 2019 to 2020, she was Editor-in-Chief of the African Physics Newsletter, published by the APS, and she is currently the Editor for Southern Africa for this publication.

Prof Gledhill has contributed to multiple other committees and panels, both for topics in her scientific field of expertise and fields of service to the broader physics community, both nationally and internationally. In many of these cases, the involvement is in a leadership capacity.

Prof Gledhill is nominated as a Fellow of the SAIP in consideration of the excellence in the Governance of Science in South Africa.

SAIP2023 Silver Jubilee Medal Award

Dr Isaac Nape, a Wits lecturer, won the 2023 Silver Jubilee Medal from the South African Institute of Physics. The award is given for outstanding achievements by a young physicist who contributes to research, education, or technology development in physics.

Nape, who graduated with his PhD from Wits in 2021 and joined Wits as a lecturer in 2022, won the award for his outstanding contributions in the field of quantum and classical structured light, with a focus on communication and computation, and his early-career national and international leadership in the photonics community.

The SAIP Silver Jubilee Medal Award is made for outstanding achievements by a young physicist in any of the following facets of any branch of Physics: research, education, technology and industrial development. Awards are made to persons who are less than 35 years old and commemorate the Silver Jubilee Year of the Institute.

The 29-year-old's research career started at the Wits Structural Light Laboratory under Professor Andrew Forbes, where he made contributions to quantum information processing in high dimensions. He then progressed to studies of multidimensional entanglement transport down optical fibres and, more recently, featured a fast measure of entanglement and a highly significant contribution to invariant vectorial states of light.

His work has garnered more than 1100 citations in the past five years, and he has published several first-author and corresponding author papers in top-ranked journals such as Nature Photonics, Nature Communications, Science Advances, Journal of Optics and Optica. Several of his papers have been featured in national and international science news publications with a wide readership.

Nape has also undertaken three international research visits to different institutions. The most recent at the Institute of Photonics and Quantum Sciences at Heriot-Watt University in Edinburgh, UK, leading to the Nature Communications paper. In this work, Nape conceived of and led the theory development and experimental execution and showed that a quick probe of a quantum state by a Bell-like measurement could yield very fast and very accurate predictions as to how many dimensions are entangled and to what extent. Prior to this work, many time-consuming measurements would be needed, or only witnesses could be deduced. His host at Heriot-Watt University regards him as a rising young talent in the international community with an outstanding publication record for an early-career scientist.

Nape was also recently named in the 2023 Mail & Guardian's 200 Young South Africans, which recognises and rewards South African youth who have created resilient, entrepreneurial and robust solutions. He also received an Emerging Leader Award grant from the South African Quantum Initiative (SA-QuTi), a competitive grant from the DSI. He was selected to attend the Global Young Scientists Summit 2023 in Singapore.

"An award such as this means a lot to me, as it says that the professional institutions in your field are recognising your work, and therefore fuels my drive for doing good work", says Nape, who would like to dedicate his future to growing and contributing towards the South African quantum tech community.

The South African Institute of Physics (SAIP) is a not-for-profit voluntary learned society for physicists, established in 1955. It is also the professional body registered with SAQA for recognising merit by assigning professional designations (Certified Physicist, CPhys, and Certified Industrial and Physical Science Technologist, CPhysTech).

As part of its mission to be the Voice of Physics in South Africa, the Institute has several awards that recognise the achievements of South African physicists. One such award is the Silver Jubilee Medal Award.

With such a bright future ahead of him and the likelihood of receiving many offers from international institutions, Nape says he will stick to his South African roots. "The South African government has started investing a lot into quantum research recently. I feel I would contribute more here than going overseas."

Membership

Membership Statistics

We currently have over 4,400 members, including professionals in different industries, academics, researchers, university students, learners, and teachers. 10 percent of our members are from outside South Africa.

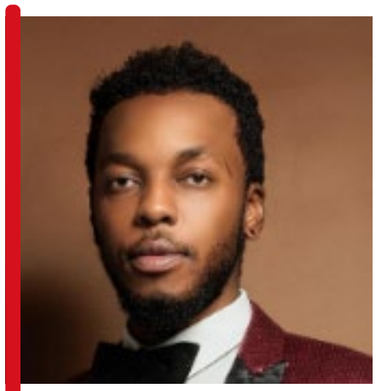
Category	20-Jun	21-Jun	22-Jul	23-Jun
Associate	71	66	38	44
Emeritus	5	5	5	5
Institutional	3	3	3	3
Fellow	17	23	22	24
Honorary	37	37	37	37
Ordinary	261	261	203	210
CPhys	313	318	188	226
CPhysTECH	53	53	37	41
Retired	9	10	8	11
Students	271	271	100	153
E-members (non-paying)	3501	3500	3500	3657
Total	**4542**	**4547**	**4141**	**4411**

SAIP membership engagement roadshow

Since 2021, the SAIP has embarked on roadshows engaging stakeholders (researchers, students, academics and administrators) from physics departments and national facilities. The goal of the roadshow is to improve physics stakeholders' understanding of the SAIP, its role, services, projects, and benefits of becoming members of SAIP. We hope the initiative will improve stakeholders' interaction with SAIP, enabling them to participate actively and benefit from SAIP programmes. In addition, the roadshows will stimulate discussions on what challenges the physics community is facing. So far, five institutions have been visited, and a thread coming out of the engagements is for the SAIP to develop a strategy to strengthen industry-academia collaborations in physics.

Our Office Team

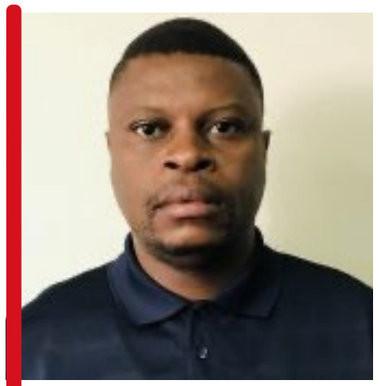
DR BRIAN MASARA
Executive Officer



MR VUKOSI MASHELE
Media Liaison Officer

MR BALANGANANI MAKHADO
Stakeholder Engagement Manager

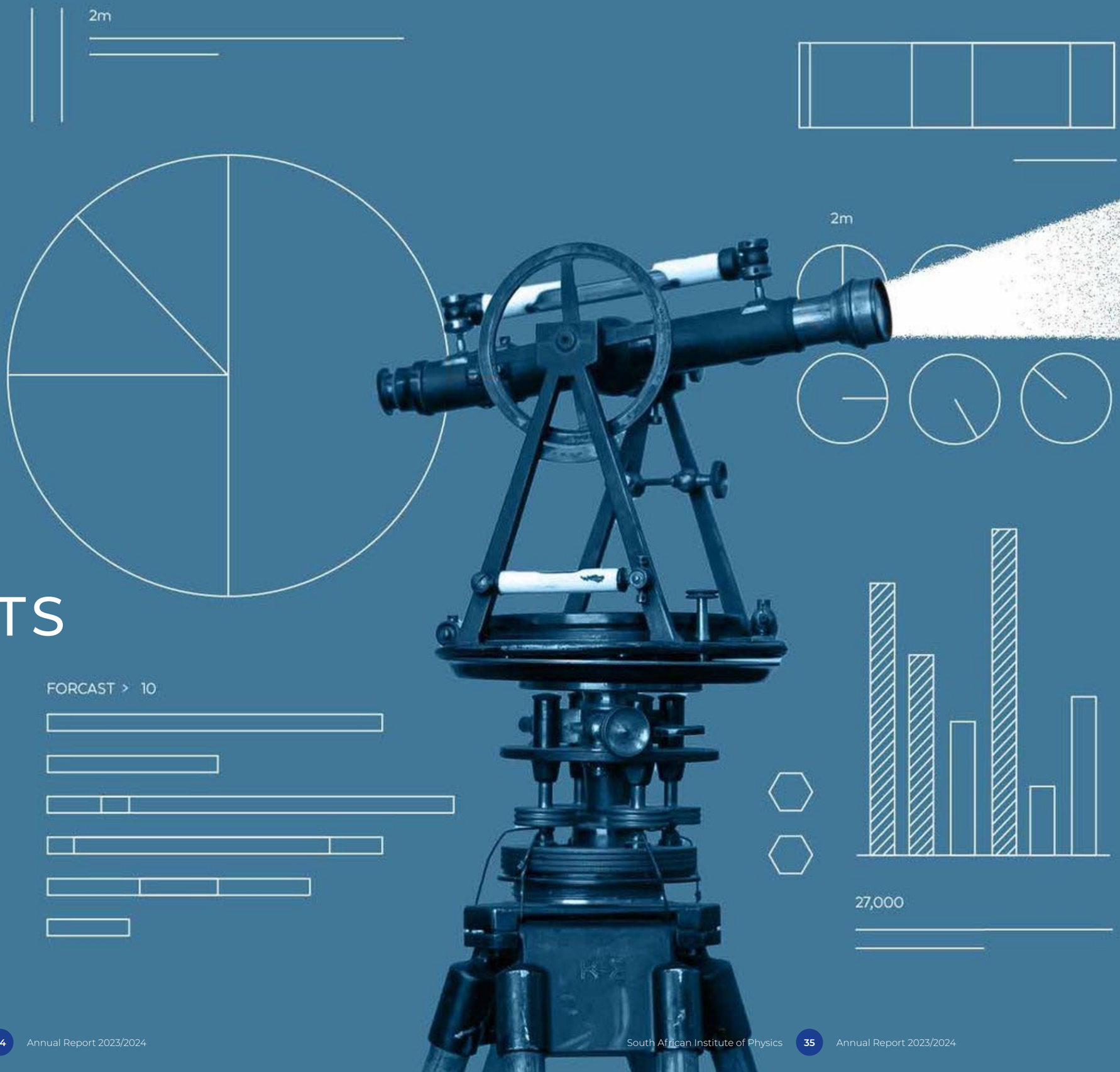
MRS AGNES MOKWENA
Office Secretary



MR TEBOGO MOKHINE
IT Support Officer

MS NDANGA MAHANI
Projects Officer

ANNUAL FINANCIAL STATEMENTS



SOUTH AFRICAN INSTITUTE OF PHYSICS
(Registration number 130-172 NPO)
ANNUAL FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2024

These annual financial statements were prepared by:
Forvis Mazars
These annual financial statements have been audited in compliance with the applicable requirements of the Companies Act of South Africa.
Issued 05 July 2024

SOUTH AFRICAN INSTITUTE OF PHYSICS
Annual Financial Statements for the year ended 31 March 2024
General Information

Country of incorporation and domicile	South Africa
Nature of business and principal activities	Educational support services
Registered office	CSIR Main Campus Building 42 CSIR North Gate Entrance Meiring Naude Road Brummeria 0184
Business address	CSIR Main Campus Building 42 CSIR North Gate Entrance Meiring Naude Road Brummeria 0184
Postal address	Postnet Suite 165 Private Bag X025 Lynnwood Ridge 0040
Auditors	Forvis Mazars Registered Auditor
Company registration number	130-172 NPO
Tax reference number	9551284160
Level of assurance	These annual financial statements have been audited in compliance with the applicable requirements of the Companies Act of South Africa.
Preparer	The annual financial statements were independently compiled by: Forvis Mazars
Issued	05 July 2024

SOUTH AFRICAN INSTITUTE OF PHYSICS
Annual Financial Statements for the year ended 31 March 2024
Index

The reports and statements set out below comprise the annual financial statements presented to the member:

SOUTH AFRICAN INSTITUTE OF PHYSICS
Annual Financial Statements for the year ended 31 March 2024
Treasurers' Responsibilities and Approval

The treasurer is required by the Companies Act of South Africa, to maintain adequate accounting records and are responsible for the content and integrity of the annual financial statements and related financial information included in this report. It is their responsibility to ensure that the annual financial statements fairly present the state of affairs of the institute as at the end of the financial year and the results of its operations and cash flows for the period then ended, in conformity with the International Financial Reporting Standard for Small and Medium-sized Entities. The external auditors are engaged to express an independent opinion on the annual financial statements.

The annual financial statements are prepared in accordance with the International Financial Reporting Standard for Small and Medium-sized Entities and are based upon appropriate accounting policies consistently applied and supported by reasonable and prudent judgements and estimates.

The treasurer acknowledges that he is ultimately responsible for the system of internal financial control established by the institute and place considerable importance on maintaining a strong control environment. To enable the treasurer to meet these responsibilities, the treasurer sets standards for internal control aimed at reducing the risk of error or loss in a cost effective manner. The standards include the proper delegation of responsibilities within a clearly defined framework, effective accounting procedures and adequate segregation of duties to ensure an acceptable level of risk. These controls are monitored throughout the institute and all employees are required to maintain the highest ethical standards in ensuring the institute's business is conducted in a manner that in all reasonable circumstances is above reproach. The focus of risk management in the institute is on identifying, assessing, managing and monitoring all known forms of risk across the institute. While operating risk cannot be fully eliminated, the institute endeavours to minimise it by ensuring that appropriate infrastructure, controls, systems and ethical behaviour are applied and managed within predetermined procedures and constraints.

The treasurer is of the opinion, based on the information and explanations given by management, that the system of internal control provides reasonable assurance that the financial records may be relied on for the preparation of the annual financial statements. However, any system of internal financial control can provide only reasonable, and not absolute, assurance against material misstatement or loss.

The treasurer has reviewed the institute's cash flow forecast for the year to 31 March 2025 and, in the light of this review and the current financial position, he is satisfied that the institute has or has access to adequate resources to continue in operational existence for the foreseeable future.

The external auditors are responsible for independently auditing and reporting on the institute's annual financial statements. The annual financial statements have been examined by the institute's external auditors and their report is presented on pages 4 to 6.

The annual financial statements set out on pages 7 to 12, which have been prepared on the going concern basis, were approved by the treasurer on 05 July 2024 and were signed on its behalf by:

President: SAIP

Honorary Treasurer: SAIP

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Email: pta@mazars.co.za
forvismazars.com/za

South African Institute of Physics

Independent Auditor's Report

31 March 2024

Independent Auditor's Report

To the Members of South African Institute of Physics

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of South African Institute of Physics set out on pages 8 to 12, which comprise the statement of financial position as 31 March 2024, and the statement of comprehensive income, statement of changes in equity for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements present fairly, in all material respects, the financial position of South African Institute of Physics as at 31 March 2024, and its financial performance and cash flows for the year then ended in accordance with the IFRS for SME® Accounting Standards as issued by the International Accounting Standards Board and the requirements of the Companies Act of South Africa.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the company in accordance with the Independent Regulatory Board for Auditors' *Code of Professional Conduct for Registered Auditors* (IRBA Code) and other independence requirements applicable to performing audits of financial statements in South Africa. We have fulfilled our other ethical responsibilities in accordance with the IRBA Code and in accordance with other ethical requirements applicable to performing audits in South Africa. The IRBA Code is consistent with the corresponding sections of the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards)*. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

The members are responsible for the other information. The other information comprises the information included in the document titled "South African Institute of Physics Financial Statements for the year ended 31 March 2024", which includes the Treasurer's Report, as required by the Companies Act of South Africa. The other information does not include the financial statements and our auditor's reports thereon.

Our opinion on the financial statements does not cover the other information and we do not express an audit opinion or any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Members for the Financial Statements

The members are responsible for the preparation and fair presentation of the financial statements in accordance with IFRS for SME Accounting Standards as issued by the International Accounting Standards Board and the requirements of the Companies Act of South Africa, and for such internal control as the members determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the members are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the members either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is included in the Appendix to this auditor's report. This description, which is located at page 7, forms part of our auditor's report.

Forvis Mazars
Partner: Johan Eloff
Registered Auditor
05 July 2024
Pretoria

Appendix

Auditor's Responsibilities for the Audit of the Financial Statements

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the members.
- Conclude on the appropriateness of the members' use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the members regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

The treasurer has pleasure in submitting his report on the annual financial statements of South African Institute of Physics for the year ended 31 March 2024.

1. Incorporation

The institute was founded on 25 February 2011 and obtained its certificate to commence business on the same day.

2. Nature of business

South African Institute of Physics was incorporated in South Africa and its main objective is to promote and recognise excellence in physics in all its forms, to encourage greater collaboration amongst physicists and to enhance public awareness of issues relating to physics and creating a positive image of physics in South Africa.

There have been no material changes to the nature of the institute's business from the prior year.

3. Review of financial results and activities

The annual financial statements have been prepared in accordance with International Financial Reporting Standard for Small and Medium-sized Entities and the requirements of the Companies Act of South Africa. The accounting policies have been applied consistently compared to the prior year.

Full details of the financial position, results of operations and cash flows of the institute are set out in these annual financial statements.

4. Events after the reporting period

The treasurer is not aware of any material event which occurred after the reporting date and up to the date of this report.

5. Going concern

The treasurer believes that the institute has adequate financial resources to continue in operation for the foreseeable future and accordingly the annual financial statements have been prepared on a going concern basis. The treasurer has satisfied himself that the institute is in a sound financial position and that it has access to sufficient borrowing facilities to meet its foreseeable cash requirements. The treasurer is not aware of any new material changes that may adversely impact the institute. The treasurer is also not aware of any material non-compliance with statutory or regulatory requirements or of any pending changes to legislation which may affect the institute.

6. Auditors

Forvis Mazars continued in office as auditors for the institute for 2024.

Figures in Rand	Notes	2024	2023
Assets			
Current Assets			
Trade and other receivables	2	793,072	741,580
Cash and cash equivalents	3	7,043,456	6,927,946
		7,836,528	**7,669,526**
Total Assets		**7,836,528**	**7,669,526**
Equity and Liabilities			
Equity			
Reserves		3,311,911	3,670,008
Retained income		4,497,935	3,992,902
		7,809,846	**7,662,910**
Liabilities			
Current Liabilities			
Trade and other payables	4	26,682	6,616
Total Equity and Liabilities		**7,836,528**	**7,669,526**

SOUTH AFRICAN INSTITUTE OF PHYSICS
Annual Financial Statements for the year ended 31 March 2024
Statement of Comprehensive Income

Figures in Rand	Notes	2024	2023
Membership fees			
Membership fees	5	512,941	417,806
Other income			
Other income		22,717	22,153
Sponsorship		-	10,000
		22,717	**32,153**
Operating expenses			
Accounting fees		5,526	6,356
Auditors remuneration	7	40,504	37,450
Bad debts		140,969	10,813
Bank charges		7,696	8,233
Council meetings		30,276	8,653
Honoraria		26,147	40,915
Other expenses		132,049	187,038
Prizes		107,379	10,983
Travel - local		15,878	122,036
		506,424	**432,477**
Operating profit		**29,234**	**17,482**
Investment income	8	475,799	343,224
Profit for the year		**505,033**	**360,706**
Other comprehensive income		-	-
Total comprehensive income for the year		**505,033**	**360,706**

SOUTH AFRICAN INSTITUTE OF PHYSICS
Annual Financial Statements for the year ended 31 March 2024
Statement of Changes in Equity

Figures in Rand	Other NDR	Retained income	Total equity
Balance at 01 April 2022	**3,555,624**	**3,632,196**	**7,187,820**
Profit for the year	-	360,706	360,706
Other comprehensive income	-	-	-
Total comprehensive income for the year	**-**	**360,706**	**360,706**
Transfer between reserves	114,384	-	114,384
Total changes	**114,384**	**-**	**114,384**
Balance at 01 April 2023	**3,670,008**	**3,992,902**	**7,662,910**
Profit for the year	-	505,033	505,033
Other comprehensive income	-	-	-
Total comprehensive income for the year	**-**	**505,033**	**505,033**
Transfer between reserves	(358,097)	-	(358,097)
Total changes	**(358,097)**	**-**	**(358,097)**
Balance at 31 March 2024	**3,311,911**	**4,497,935**	**7,809,846**

SOUTH AFRICAN INSTITUTE OF PHYSICS
Annual Financial Statements for the year ended 31 March 2024
Accounting Policies

1. Basis of preparation and summary of significant accounting policies

The annual financial statements have been prepared on a going concern basis in accordance with the International Financial Reporting Standard for Small and Medium-sized Entities, and the Companies Act of South Africa. The annual financial statements have been prepared on the historical cost basis, and incorporate the principal accounting policies set out below. They are presented in South African Rands.

These accounting policies are consistent with the previous period.

1.1 Financial instruments

Initial measurement

Financial instruments are initially measured at the transaction price (including transaction costs except in the initial measurement of financial assets and liabilities that are measured at fair value through profit or loss) unless the arrangement constitutes, in effect, a financing transaction in which case it is measured at the present value of the future payments discounted at a market rate of interest for a similar debt instrument.

Financial instruments at amortised cost

These include trade receivables and trade payables. They are subsequently measured at amortised cost using the effective interest method. Debt instruments which are classified as current assets or current liabilities are measured at the undiscounted amount of the cash expected to be received or paid, unless the arrangement effectively constitutes a financing transaction.

At each reporting date, the carrying amounts of assets held in this category are reviewed to determine whether there is any objective evidence of impairment. If there is objective evidence, the recoverable amount is estimated and compared with the carrying amount. If the estimated recoverable amount is lower, the carrying amount is reduced to its estimated recoverable amount, and an impairment loss is recognised immediately in profit or loss.

Financial instruments at cost

Equity instruments that are not publicly traded and whose fair value cannot otherwise be measured reliably without undue cost or effort are measured at cost less impairment.

Derecognition

Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the entity has transferred substantially all risks and rewards of ownership.

Financial liabilities are derecognised when they are extinguished, i.e. the contract is discharged, cancelled or expires.

1.2 Tax

Tax expenses

The institute is exempt from taxation.

1.3 Revenue

Revenue is measured at the fair value of the consideration received or receivable and represents the amounts receivable for goods and services provided in the normal course of business, excluding sales taxes and discounts.

Interest is recognised, in profit or loss, using the effective interest rate method.

Figures in Rand	2024	2023
2. Trade and other receivables		
Trade receivables	793,072	741,580
3. Cash and cash equivalents		
Cash and cash equivalents consist of:		
Cash on hand	453	995
Bank balances	272,231	1,302,695
Short-term deposits	6,770,772	5,624,256
	7,043,456	**6,927,946**
4. Trade and other payables		
VAT	26,682	6,616
5. Revenue		
Membership fees	512,941	417,806
6. Other income		
SAIP office receipts	22,717	22,153
Sponsorship	-	10,000
	22,717	**32,153**
7. Auditor's remuneration		
Fees	40,504	37,450
8. Investment revenue		
Interest revenue		
Bank	475,799	343,224
9. Taxation		
Non provision of tax		
No provision has been made for 2024 tax as the institute is exempt from tax. (PBO exemption number 930026892)		
10. Cash used in operations		
Profit before taxation	505,033	360,706
Adjustments for:		
Interest received	(475,799)	(343,224)
Changes in working capital:		
Trade and other receivables	(51,492)	(36,918)
Trade and other payables	20,066	(36,225)
	(2,192)	**(55,661)**

Trust Funds

Figures in Rand	2024	2023
1. African Light Source 2015 Conference		
Opening balance	890	890
Contributions	92,407	-
Costs	(92,548)	-
	749	**890**
2. African School of Physics		
Opening balance	1,351,037	1,706,077
Contribution	751,587	82,944
Costs	(386,430)	(437,984)
	1,716,194	**1,351,037**
3. SAIP 2019		
Opening balance	(9,574)	(9,574)
	(9,574)	**(9,574)**
4. Biophysics project		
Opening balance	11,759	11,759
	11,759	**11,759**
5. SAIP 2022		
Opening balance	65,234	-
Contributions	11,130	328,181
Costs	(78,538)	(262,947)
	(2,174)	**65,234**
6. DPCMM		
Opening balance	-	50,854
Contributions	73,419	-
Costs	(73,419)	(50,854)
	-	**-**
7. Entrepeneurs Workshop		
Opening balance	99,030	99,030
	99,030	**99,030**
8. Marketing & Outreach		
Opening balance	23,593	20,315
Contributions	-	15,544
Costs	(13,260)	(12,266)
	10,333	**23,593**

Trust Funds

9. SACPM

Opening balance	869,007	364,018
Contributions	191,496	1,115,813
Costs	(445,649)	(610,824)
	614,854	**869,007**

10. SAIP 2021

Opening balance	1,087	169,781
Contribution	-	8,783
Costs	(1,087)	(177,477)
	-	**1,087**

11. ICOAM-2024

Contribution	284,250	-
Costs	(9,881)	-
	274,369	**-**

12. SAIP 2023

Opening balance	15,000	-
Contribution	1,663,777	15,000
Costs	(2,216,732)	-
	(537,955)	**15,000**

13. Science & Me

Contributions	12,286	390,211
Costs	(12,286)	(377,925)
	-	**12,286**

14. SA Sustainable Energy Conference (SASEC)

Contributions	783,707	-
Costs	(431,088)	-
	352,619	**-**

15. National Science Week

Opening balance	53,559	11,009
Contributions	175,770	123,600
Costs	(229,329)	(81,050)
	-	**53,559**

16. SAIP Conference Reserve Fund

Opening balance	361,371	361,371
Contributions	78,538	-
	439,909	**361,371**

Trust Funds

17. SAIP Office DST Grant

Opening balance	(828,293)	(506,936)
Contributions	1,600,000	1,600,000
Costs	(2,246,593)	(1,921,357)
	(1,474,886)	**(828,293)**

18. SAPHO

Opening balance	(16,577)	19,249
Contributions	79,402	20,172
Costs	(56,934)	(55,998)
	5,891	**(16,577)**

19. Student Chapter Project

Opening balance	9,123	9,123
	9,123	**9,123**

20. SAIP Office Project

Opening balance	1,458,853	1,092,372
Contribution	218,547	398,109
Cost	-	(31,628)
	1,677,400	**1,458,853**

21. Undergraduate Degree Project

Opening balance	134,505	134,505

22. WIPISA

Opening balance	21,745	42,154
Contributions	28,720	170,901
Costs	(55,108)	(191,310)
	(4,643)	**21,745**

23. Teacher Development Project

Opening balance	56,474	(272)
Contributions	57,141	887,636
Costs	(99,113)	(830,890)
	14,502	**56,474**

SAIP PHYSICS FOR DEVELOPMENT FOUNDATION TRUST
(Registration number IT000894/2018)
ANNUAL FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2024

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
General Information

Country of incorporation and domicile	South Africa
Trustees	A Venter PA Woudt R Nemutudi B Masara
Registered office	CSIR Main Campus Building 42 CSIR North Gate Entrance Meiring Naude Road Brummeria
Business address	CSIR Main Campus Building 42 CSIR North Gate Entrance Meiring Naude Road Brummeria
Postal address	Postnet Suite 165 Private Bag X025 Lynnwood Ridge 0040
Auditors	Forvis Mazars Registered Auditor
Trust registration number	IT000894/2018
Level of assurance	These annual financial statements have been audited in compliance with the applicable requirements of the Trust Property Control Act 57 of 1988.
Preparer	The annual financial statements were independently compiled by: Forvis Mazars Registered Auditor
Issued	05 July 2024

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
Index

The reports and statements set out below comprise the annual financial statements presented to the trustees:

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
Trustees' Responsibilities and Approval

The trustees are required to maintain adequate accounting records and are responsible for the content and integrity of the annual financial statements and related financial information included in this report. It is their responsibility to ensure that the annual financial statements fairly present the state of affairs of the trust as at the end of the financial year and the results of its operations and cash flows for the period then ended, in conformity with the International Financial Reporting Standard for Small and Medium-sized Entities.

The annual financial statements are prepared in accordance with the International Financial Reporting Standard for Small and Medium-sized Entities and are based upon appropriate accounting policies consistently applied and supported by reasonable and prudent judgments and estimates.

The trustees acknowledge that they are ultimately responsible for the system of internal financial control established by the trust and place considerable importance on maintaining a strong control environment. To enable the trustees to meet these responsibilities, the board of trustees sets standards for internal control aimed at reducing the risk of error or loss in a cost effective manner. The standards include the proper delegation of responsibilities within a clearly defined framework, effective accounting procedures and adequate segregation of duties to ensure an acceptable level of risk. These controls are monitored throughout the trust and all employees are required to maintain the highest ethical standards in ensuring the trust's business is conducted in a manner that in all reasonable circumstances is above reproach. The focus of risk management in the trust is on identifying, assessing, managing and monitoring all known forms of risk across the trust. While operating risk cannot be fully eliminated, the trust endeavours to minimise it by ensuring that appropriate infrastructure, controls, systems and ethical behaviour are applied and managed within predetermined procedures and constraints.

The trustees are of the opinion, based on the information and explanations given by management, that the system of internal control provides reasonable assurance that the financial records may be relied on for the preparation of the annual financial statements. However, any system of internal financial control can provide only reasonable, and not absolute, assurance against material misstatement or loss.

The trustees have reviewed the trust's cash flow forecast for the year to 31 March 2025 and, in the light of this review and the current financial position, they are satisfied that the trust has or has access to adequate resources to continue in operational existence for the foreseeable future.

The external auditors are responsible for independently auditing and reporting on the trust's annual financial statements. The annual financial statements have been examined by the trust's external auditors and their report is presented on pages 4 to 6.

The annual financial statements set out on pages 7 to 14, which have been prepared on the going concern basis, were approved by the board of trustees on 05 July 2024 and were signed on its behalf by:

Trustee
Dr R Nemutudi

Trustee
Dr B Masara

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c/o Solomon Mahlangu Drive & Van Ryneveld Avenue
Waterkloof Ridge, Pretoria, 0181
Private Bag X17, Brooklyn Square, 0075

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SAIP Physics for Development Foundation Trust

Independent Auditor's Report

31 March 2024

SAIP Physics for Development Foundation Trust

Independent Auditor's Report

To the Trustees of SAIP Physics for Development Foundation Trust

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of SAIP Physics for Development Foundation Trust set out on pages 7 to 14, which comprise the statement of financial position as 31 March 2024, and the statement of comprehensive income, statement of changes in equity and the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements present fairly, in all material respects, the financial position of SAIP Physics for Development Foundation Trust as at 31 March 2024, and its financial performance and cash flows for the year then ended in accordance with the IFRS for SME® Accounting Standards as issued by the International Accounting Standards Board and the requirements of the Trust Property Control Act 57 of 1998.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the trust in accordance with the Independent Regulatory Board for Auditors' *Code of Professional Conduct for Registered Auditors* (IRBA Code) and other independence requirements applicable to performing audits of financial statements in South Africa. We have fulfilled our other ethical responsibilities in accordance with the IRBA Code and in accordance with other ethical requirements applicable to performing audits in South Africa. The IRBA Code is consistent with the corresponding sections of the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards)*. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

The trustees are responsible for the other information. The other information comprises the information included in the document titled "SAIP Physics for Development Foundation Trust Financial Statements for the year ended 31 March 2024", which includes the Trustees' Report, as required by the Trust Property Control Act 57 of 1998. The other information does not include the financial statements and our auditor's reports thereon.

Our opinion on the financial statements does not cover the other information and we do not express an audit opinion or any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Trustees for the Financial Statements

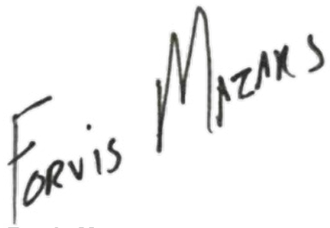
The trustees are responsible for the preparation and fair presentation of the financial statements in accordance with IFRS for SME Accounting Standards as issued by the International Accounting Standards Board and the requirements of the Property Control Act 57 of 1998, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the trust's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the trust or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is included in the Appendix to this auditor's report. This description, which is located at page 7, forms part of our auditor's report.



Forvis Mazars
Partner: Johan Eloff
Registered Auditor
05 July 2024
Pretoria

Appendix

Auditor's Responsibilities for the Audit of the Financial Statements

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the trustees.
- Conclude on the appropriateness of the trustees' use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the trust to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the trustees regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
Trustees' Report

The trustees have pleasure in submitting their report on the annual financial statements of SAIP Physics for Development Foundation Trust for the year ended 31 March 2024.

1. The trust

The trust was formed in terms of a trust settlement by the South African Institute of Physics of R500. It was formed on 30 August 2017.

2. Nature of business

SAIP Physics for Development Foundation Trust was formed in South Africa and its main objective is to enhance public awareness and promote study and research in the area of physics.

There have been no material changes to the nature of the trust's business from the prior year.

3. Review of financial results and activities

The annual financial statements have been prepared in accordance with International Financial Reporting Standard for Small and Medium-sized Entities. The accounting policies have been applied consistently compared to the prior year.

Full details of the financial position, results of operations and cash flows of the trust are set out in these annual financial statements.

4. Beneficiaries

The beneficiary of the trust are members of the public, including learners ar primary and secondary schoold and students at tertiary institutions who will benefit from the activities of the trust.

5. Distributions to beneficiaries

No distributions to beneficiaries have bee made during the 2023 financial year.

6. Trustees

The trustees in office at the date of this report are as follows:

Trustees
A Venter
PA Woudt
R Nemutudi
B Masara

There have been no changes to the trustees for the period under review.

7. Events after the reporting period

The trustees are not aware of any material event which occurred after the reporting date and up to the date of this report.

8. Going concern

The trustees believe that the trust has adequate financial resources to continue in operation for the foreseeable future and accordingly the annual financial statements have been prepared on a going concern basis. The trustees have satisfied themselves that the trust is in a sound financial position and that it has access to sufficient borrowing facilities to meet its foreseeable cash requirements. The trustees are not aware of any new material changes that may adversely impact the trust. The trustees are also not aware of any material non-compliance with statutory or regulatory requirements or of any pending changes to legislation which may affect the trust.

9. Auditors

Forvis Mazars continued in office as auditors for the trust for 2024.

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
Statement of Financial Position as at 31 March 2024

Figures in Rand	Notes	2024	2023
Assets			
Current Assets			
Cash and cash equivalents	2	378,213	387,383
Total Assets		**378,213**	**387,383**
Equity and Liabilities			
Equity			
Trust capital	3	2,500	2,500
Reserves	4	313,227	331,947
Accumulated surplus		62,486	52,936
		378,213	**387,383**
Total Equity and Liabilities		**378,213**	**387,383**

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
Statement of Comprehensive Income

Figures in Rand	Notes	2024	2023
Other income			
Administration and management fees received		-	19,291
Operating expenses			
Accounting fees		15,169	10,120
Bank charges		1,188	1,615
General expenses		137	5,074
		16,494	**16,809**
Operating (deficit) surplus		**(16,494)**	**2,482**
Investment income	5	26,044	30,844
Surplus for the year		**9,550**	**33,326**

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
Statement of Changes in Equity

Figures in Rand	Trust capital	Other NDR	Accumulated surplus	Total equity
Balance at 01 April 2022	**2,500**	**245,820**	**19,610**	**267,930**
Surplus for the year	**-**	**-**	**33,326**	**33,326**
Transfer to reserves	-	86,127	-	86,127
Total changes	**-**	**86,127**	**-**	**86,127**
Balance at 01 April 2023	**2,500**	**331,947**	**52,936**	**387,383**
Surplus for the year	**-**	**-**	**9,550**	**9,550**
Transfer to reserves	-	(18,720)	-	(18,720)
Total changes	**-**	**(18,720)**	**-**	**(18,720)**
Balance at 31 March 2024	**2,500**	**313,227**	**62,486**	**378,213**
Notes	3	4		

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
Statement of Cash Flows

Figures in Rand	Notes	2024	2023
Cash flows from operating activities			
Cash receipts from customers		-	19,291
Cash paid to suppliers and employees		(16,494)	(16,808)
Cash (used in) generated from operations	7	(16,494)	2,483
Interest income		26,044	30,844
Net cash from operating activities		**9,550**	**33,327**
Cash flows from investing activities			
Funding received		(18,720)	86,126
Total cash movement for the year		**(9,170)**	**119,453**
Cash and cash equivalents at the beginning of the year		387,383	267,930
Total cash at end of the year	2	**378,213**	**387,383**

SAIP Physics for Development Foundation Trust
Annual Financial Statements for the year ended 31 March 2024
Accounting Policies

1. Basis of preparation and summary of significant accounting policies

The annual financial statements have been prepared on a going concern basis in accordance with the International Financial Reporting Standard for Small and Medium-sized Entities. The annual financial statements have been prepared on the historical cost basis, and incorporate the principal accounting policies set out below. They are presented in South African Rands.

These accounting policies are consistent with the previous period.

1.1 Tax

Tax expenses

The trust is registered as a public benefit organisation and is thus exempt from tax.

Notes to the Annual Financial Statements

Figures in Rand	2024	2023
2. Cash and cash equivalents		
Cash and cash equivalents consist of:		
Bank balances	378,213	387,383
3. Trust capital		
Capital account / Trust capital		
Balance at beginning of year	2,500	2,500
4. Other NDR		
Teacher Development		
Opening balance	-	136
Contributions	60,000	830,000
Costs	(50,000)	(830,136)
	10,000	**-**
Women in Physics		
Opening balance	28,720	7,875
Contributions	28,720	210,000
Costs	(57,440)	(189,155)
	-	**28,720**
Endowment Fund		
Opening balance	287,108	237,808
Contributions	-	49,300
	287,108	**287,108**
SAIP 2021		
Contributions	16,119	16,119
5. Investment revenue		
Interest revenue		
Bank	26,044	30,844
6. Taxation		
Non provision of tax		
No provision has been made for 2024 as the trust is exempt from tax (PBO number 930063327).		
7. Cash (used in) generated from operations		
Net surplus before taxation	9,550	33,327
Investment income	(26,044)	(30,844)
	(16,494)	**2,483**

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