

1. Paul “Molf” Molefe's Resume  
*Last Updated /09/2019*

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» **Personal Details**

**Full Name**

Paul Molefe

**Phone Number**

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**Email Address**

pmolefe@uj.ac.za

**Location**

Johannesburg, South Africa (Gauteng)

» **Languages**

Current **Read, Write, Speak**

English

Tswana

**Read, Speak**

Afrikaans

Zulu

» **Education**

Completed **Project Management**

06/2005

- Certificate at University of Johannesburg in Johannesburg, South Africa (Gauteng).

Completed **MSc Physics**

01/2001

- Masters at Rands Afrikaanse University in Johannesburg, South Africa (Gauteng).

### Subjects

- I have done research in Photovaltaics for my MSc titled: MATERIAL PROPERTIES OF THIN FILM  $\text{Cu}(\text{IN},\text{GA})\text{SE}_2$  PREPARED BY TWO-STAGE GROWTH PROCESSES completed in 2002.

Completed **BScHons in Physics**  
01/1998

- Honours at Randse Afrikaanse University in Johannesburg, South Africa (Gauteng).

Completed **BScEd**  
12/1996

- Degree at Vista University in Johannesburg, South Africa (Gauteng).

### » Career Objective

Current: I am currently studying towards obtaining a PhD degree with Tshwane University of Technology. Possible Topic of my research is *“Exploring the educational beliefs of first year physics student teachers at the UJ”*.

I have been a tutor and facilitator in the Soweto Science Centre (SCC) for the past five years and had facilitated successful teacher workshops on Friday’s and during the school winter holidays.

### » Peer Reviewed Research Publications

1. **Molefe, P., & Sondezi-Mhlungu, B. M. (2011)**. The transition from high school physics: How well prepared are our students? 56th Annual Conference of South African Institute of Physics Proceedings.
2. Sondezi-Mhlungu, B. M., & **Molefe, P. (2011)**. Foundation provision: Any difference in students’ performance? 56th Annual Conference of South African Institute of Physics Proceedings.
3. **Molefe, P., & Sondezi-Mhlungu, B. M. (2012)**. Investigating the causes of unsatisfactory performance on the section involving vectors in basic mechanics. 57th Annual Conference of South African Institute of Physics Proceedings.
4. **Molefe, P., Sondezi-Mhlungu, B. M., & Winkler, H. (2012)**. How much do first year physics students really understand? An entry-level test. 57th Annual Conference of South African Institute of Physics Proceedings.
5. Sondezi-Mhlungu, B. M., & **Molefe, P. (2012)**. Is Foundation Provision the solution to first year students’ performance? 57th Annual Conference of South African Institute of Physics

Proceedings.

6. Ramnarain, U., & Molefe, P. (2012). The readiness of high school students to pursue first year physics. *Africa Education Review* 9 (1), 142-158.
7. Molefe, P., & Sondezi, B. M. (2013). Physics foundation program: Implications for second year mainstream physics module. 58th Annual Conference of South African Institute of Physics Proceedings.
8. Sondezi, B. M., & Molefe, P. (2013). Is there a gap between the high school curriculum and first year university experience? 58th Annual Conference of South African Institute of Physics Proceedings.
9. Molefe, P., & Sondezi, B. M. (2013). Physics foundation program: Can it increase third year physics major enrolment? International Multi-conference on Education, Law, Environment and Metallurgical Engineering (IMELEME'2013) Nov. 27-28, 2013 Johannesburg (South Africa)
10. Sondezi, B. M., & Molefe, P. (2013). Investigation of problem areas in the vectors as experienced by first year university students. *Proceedings of the International Conference of Science, Mathematics and Technology Education held at Kruger Park, 21- 24 October*. Unisa Press, 405-413.
11. Molefe, P., & Sondezi, B. M. (2014). A four-year foundation degree programme. Do we need it? 6th International Conference on Economics, Humanities, Bio-Technology & Environment Engineering (ICEHBEE'2014) Nov. 27-28, 2014 Cape Town (South Africa).
12. Sondezi, B. M., & Molefe, P. (2014). The experiences of four year programme degree students. 6th International Conference on Economics, Humanities, Bio-Technology & Environment Engineering (ICEHBEE'2014) Nov. 27-28, 2014 Cape Town (South Africa).
13. Molefe, P., & Sondezi, B. M. (2015). Exemption from Practical(s) in First Year: Is it a Good Idea? 4th International Multi-Conference on Banking, Law, Humanities, Psychology and Education (IMBLHPE'15) Dec. 15-16, 2015 Pattaya (Thailand).
14. Molefe, P., & Khwanda, M. N (2017). Students' explanation of motion in real-life context. 62th Annual Conference of South African Institute of Physics Proceedings.
15. Molefe, P., & Khwanda, M. N (2018). Activities to enhance students' understanding of acceleration (ICPE-WITS 2018).
16. P Molefe and B. M Sondezi (2019), A re-look at the sequencing of concepts in our curriculum. 64<sup>th</sup> Annual Conference of South African Institute of Physics Proceedings, in Press.
17. B. M Sondezi and P Molefe (2019), Are we giving our students more than we should? 64<sup>th</sup> Annual Conference of South African Institute of Physics Proceedings, in Press.
18. M. N Khwanda and P. Molefe (2019). An evaluation of the impact of scientific explanation model of pre-service teachers' understanding of basic concepts in electricity. 64th Annual Conference of South African Institute of Physics Proceedings, in Press.

## » Student Life Employment

02/1997 **Lab Demonstrator**

10/1997

- Casual entry level position at RAU in the Education sector in Johannesburg, South Africa (Gauteng).

### **Duties & Responsibilities**

- I was Physics lab demonstrator whilst I was studying my Honours in Physics.

02/1994 **Lab Assistant and Tutor**

12/1996

- Casual entry-level position at Vista University in the Education sector in Johannesburg, South Africa (Gauteng).

### **Duties & Responsibilities**

- My duties were to demonstrate first and second year experiments, marking and to tutor first years.

## » Working Life Employment

10/2002 to date **Lecturer**

Current

- Permanent Lecturer B at Vista University from 2002 to 2005 until incorporation of Vista in RAU and merger with TWR to form the current UJ.
- Permanent Lecturer level position at University Of Johannesburg, South Africa (Gauteng).
- Lecturing Physics to undergraduate students enrolled for BSc Extended, Physics for Engineers, Physics for Life Sciences and Mainstream Physics students (Physics Majors).

### **Responsibilities**

- Teaching physics and student teachers undergraduate is students.
- Structuring of the first year extended four-year degree course.
- Developing study and experiment materials for first year modules.
- Facilitate and coordinate undergraduate experiments.
- Coordinator of Physics Extended modules.
- Serve in the faculty of science orientation committee.

- Moderator of undergraduate physics assessments.

06/2002 **First Education Specialist (Physical Science)**

09/2002

- Permanent management level position at Gauteng Department of Education (D12) in the Education sector in Johannesburg, South Africa (Gauteng).

**Duties & Responsibilities**

- Work with Educators from schools from the abovementioned district. That included training educators and learners in Physical Science, that is, from content to experiments according to a specific school needs. Running of workshops, managing the FET phase curriculum for Physical Science and liaising with the head office with regard to the daily running of my department. These include writing reports and attending meetings with other colleagues from other districts. I have marked final year Matric Mathematics and Physical science papers.

07/2001 **HOD Mathematics and Physical Science**

06/2002

- Permanent management level position at Gauteng Department of Education in the Education sector in Johannesburg, South Africa (Gauteng).

**Duties & Responsibilities**

- Heading two departments and teaching both Mathematics and Physical Science. After two months I was an acting principal, one of the responsibilities was to change the curriculum of the school and the daily running of the school. When I left the school in 2002 in June, I made sure that I have finished the Grade 11 and 12 syllabuses and had a revision plan for the educator that took over from me.

04/1998 **Mathematics and Physical Science Educator**

06/2001

- Permanent senior level position at Gauteng Department of Education in the Education sector in Johannesburg, South Africa (Gauteng).

**Duties & Responsibilities**

- Teaching both Mathematics and Physical science from grade 8 to grade 12. I was chairing the sport and culture committee for two years and involved in timetable committee.
- Taught and helped with both mathematics and physical science in several schools on request of the subject coordinator from Krugersdorp district (Department of

Education).

### » **Community Service**

- Helping schools in Soweto with physical science (Mainly revision towards the exams).
- Help with training of Gauteng physical science educators in Soweto Science Centre.
- Help the faculty of science marketing division when learners visit our department.
- Currently facilitating Physics for teachers in the Science Centre.

### » **Skills**

- Communication skills. Ability to write clearly and concisely, extensive public speaking experience (presentations at conferences).
- General research skills. Ability to use scientific methodology to acquire and process data, identify and use resources.
- Technical skills. Ability to use specialized software to analyze, process and present data.
- Leadership and Organizational skills. Ability to manage time and motivate people. Have administrative skills. Committed to deadlines.

### » **Award**

1. 23 May 2016: The collaboration of the Soweto Science Centre, IOP and SAIP awarded me with “Outstanding dedication and commitment by a facilitator in Physical science” award.
2. October 2018: Received the Physics Education Division award for the best oral presentation given in the conference hosted by ICPE-WITS 2018.
3. July 2019: Received the Physics Education Division award for the best oral presentation given in the 64<sup>th</sup> Annual Conference of the South African Institute of Physics hosted by the University of Venda on the 12<sup>th</sup> of July 2019.

### » **Associations**

12/1999 **South African Council of Educators**  
Current Member

02/1994 **Science Student Council**

12/1996 Educational officer.