

# Strengthening Physics Scholarly Publishing in South Africa

*Nithaya Chetty*

*University of Pretoria*

*SAJS Associate Editor for Physics*

# Outline

- Current situation
- Suggestions for the future

# Physics is international

- Physics is an example of a truly global academic community
  - Strong push for SA physicists to be a part of this international community
- Physicists in SA are strongly assessed in terms of their international collaborations and linkages by their peers
- Excellence in physics, e.g. astronomy, material science
  - Physics in South Africa rather than South African physics

# Physics publishing

- There has emerged by attrition a good number of excellent international journals
  - High impact factors, high reputation, American and European journals, e.g. Physical Review
- Very difficult, very competitive to enter the market with a new journal
- Open publishing an important new avenue that is being pursued, e.g. IoP NJP
  - Onus is on the author to pay rather than the subscriber
  - Unlike SAJS where funding is provided by ASSAf
  - Open publishing is a viable option for South African physics

# Institute of Physics

- UK Physics Society and Publishing House
  - Has taken under its umbrella a number of Asian journals
  - Increases profile and prominence of these journals
- This is a model that we could consider in South Africa, i.e. we could consider publishing under the IoP brand

# South African physics publishing

- Impossible to start up a new South African Physics journal
  - SAIP had a credible SAJP in 70's
  - Resurrected in 80's but died a quiet death soon thereafter
- Vacuum in physics publications in South Africa currently
- Chris Engelbrecht Theoretical Physics Summer School series
  - Lectures published by Elsevier, but more and more lecturers prefer to make their notes available on the web
- International workshops and conferences in South Africa, *ad hoc* arrangement for quality publications to be published in an international journal, e.g. the photonics materials research group biennial meeting

# South African physics publishing

- 2007 SAIP conference, selection of papers published in SAJS
  - Fraught with problems with quality and delays
  - Senior professors are not interested, so quality is generally low
  - Mostly student submissions with little attention to quality

# South African Journal of Science

- Too many substandard submissions
- Too many highly specialised submissions
- SAJS is a multidisciplinary journal!
- Need a clearer articulation of what physics is publishable in SAJS
  - Needs consultation in community, buy-in, e.g. SAIP
  - Hope to develop clearer policy in time

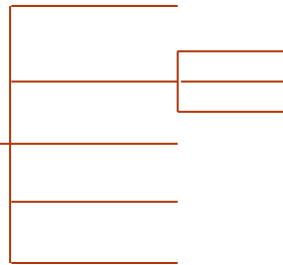


Cognate disciplines

Physics



Lasers and Optics  
Nuclear  
Particle physics  
Solid State  
Condensed Matter  
Astronomy  
Space Science  
Physics Education  
etc



Sub-sub-sub-discipline of physics

Theoretical  
Computational  
Experimental

- Multidisciplinary means that publications must appeal to cognate disciplines
- Must be readable by and be of interest to a scientifically literate community

# Gaps?

- Where are the gaps? Are there special needs for physicists in SA/Africa that are not met by international journals?
  - Student submissions
  - Conference proceedings
    - SAIP or some other publisher should consider an open access journal
    - There is a market for this!

# Gaps?

- Scholarly books
  - A small number of excellent quality scholarly books are published by SA authors with foreign publishers, e.g. Oxford, Cambridge
  - Book reviews in South African media, e.g. SAJS, press, are essential
- Text books
  - A good number of textbooks are produced for schools and universities, changed high school curriculum
  - Book reviews are important

# Gaps?

- Scientific commentaries
  - Example nuclear energy, solar energy
  - Need more critical discourse in South African society
  - Where are the independent critical thinkers?
- Popular science
  - Important for exciting a new generation of students into physics
  - Important for communicating the importance of science to policy makers and funders
- Communicating big science projects
  - Astronomy
  - Expensive equipment such as HR Electron microscope
- Scientific newsworthy stories
  - Scientific journalism

# Gaps?

- Quality scientific journal submissions
- SAJS is multidisciplinary
  - Appeals to cognate disciplines
  - Readable and of interest to a scientifically literate community
- Must be high quality science

Thank you!