

Enabling capacity development in physics in Africa through science, technology, and innovation policy and governance.

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Abstract

Science, and physics in particular has increasingly become a global enterprise. This phenomena of the movement of scientists beyond sovereignty is accelerating. This is partly because science, by its nature, resists to be confined in boundaries. Even within the confined boundaries science needs enabling environment for creativity. No one nation can afford to do *big* science alone.

For Africa's physics community to actively participate in the international science landscape and to contribute positively to the continent's sustainable development, governments should make enabling and supportive STI policies.

In this public lecture we will discuss STI policy in relation to capacity building in physics in Africa.

Biography

Prof Azwinndini Muronga is the Executive of Science at Nelson Mandela University. He obtained his BSc in mathematics & Physics from the University of Venda before going on to obtain Honours and MSc in Theoretical Physics from the University of Cape Town. He obtained his PhD in Theoretical Physics from the University of Minnesota, USA. His PhD work won the Aneesur Rahman Award for his contribution to the understanding of relativistic treatment of viscosity in heavy ion collisions.

His current research interest is on theoretical high energy physics where he studies nuclear matter under extreme conditions in relativistic heavy-ion collisions and in astrophysical processes such as those in neutron star collisions and core collapse supernova.

He has served the local, regional, and global science community in various roles. Amongst these:

- He is the past president of the South African Institute of Physics (SAIP) and currently an ambassador for the Teacher Development and Outreach & Public Understanding of Physics Projects of the SAIP.
- He also serves on the Board of the South African National Space Agency as well as a council member at the South African Council for Natural Scientific professions (SACNASP).
- He serves on the International Advisory Committee (IAC) of the African Strategy on Fundamental Physics and Applications (ASFAP) as well as on the interim council of the African Physical Society (AfPS).
- He is the Vice-Chair of C11 Commission on *Particles and Fields* at the International Union of Pure and Applied Physics (IUPAP).

Apart from his own research interests, he is also an outstanding and recognized science educator and an advocate for science education, with a strong passion for, and interest in, taking science to society, particularly to rural and disadvantaged communities. He received the 2013 Distinguished Leadership Award for Internationals from the University of Minnesota, and the 2013/2014 NSTF-BHP Billiton Award for his outstanding contributions to science education and leadership.