



NITheCS

National Institute for
Theoretical and Computational Sciences

COLLOQUIUM

Humanity in the sciences: ways forward

Prof Irvy (Igle) Gledhill (University of the Witwatersrand)

DATE: Monday, 26 August 2024 | 16h00–17h00 SAST

VENUES:

- Neelsie Cinema, Stellenbosch University
- Online

ABSTRACT

Our society is moving toward increased diversity in participation in and access to science. The global trend includes improving the workplace environment in terms of gender: we all want to work in a stimulating, encouraging environment, free of bias based on who we are, but recognising the varied journeys we follow. Initiatives for, for example, women, should create a better workplace for all in terms of gender equity. As scientists, we rely on evidence and data in considering how to move forward. As published data tends to offer more insight into the situation of women and men than into gender in general, I will focus on similarities and contrasts in terms of men and women for the purposes of this talk.

There are long and honorable traditions of the participation of women in science. It is easy to cite the contributions of Nobel Laureates. However, to take an example, the number of women in physics remains low in comparison to other natural sciences, as far as we can deduce this from the data available. An example will be cited from a study of the percentages of authorships by women in theoretical physics, which appear to hover at approximately 10%. Why is this so?

A global project, initiated by the International Science Council, ran from 2016 to 2020 to provide some evidence relevant to such questions. Approximately 32 000 scientists from the natural, mathematical and computational sciences participated in a survey over 159 countries, developed and analysed in collaboration with statistical sociologists. A data-backed study of publication patterns was carried out over millions of publications in journal databases, which provides insight. A short summary of ways forward will be provided.

BIOGRAPHY

Prof Irvy (Igle) Gledhill is Honorary Adjunct Professor of Flow Physics in the School of Mechanical, Industrial and Aeronautical Engineering at Wits. Her postdoctoral work was at the University of California on magnetic confinement of plasma for thermonuclear fusion, and at Stanford University on space shuttle physics. For 30 years, she specialised in transonic computational fluid dynamics at the CSIR. She also contributed within multidisciplinary collaborations including rational drug design, ocean engineering and coal mine safety. She is a past president of the SAIP, and chaired the IUPAP Working Group 5 on women in Physics. She is committed to improving the work environment for all scientists. She is a Vice-President of the NASAC, and interim Vice President of the ASSAf. She serves on the SA-UNESCO Science Sector Committee, and the WCC Interdisciplinary Committee. She's a Fellow of the SAIP and APS. She was awarded a DSc (honoris causa) by Rhodes University in 2024 and received the National Science and Technology Forum award for science diplomacy in Africa. Her present interest is in the aerodynamics of bodies undergoing significant acceleration.



**REGISTER
TO ATTEND**

<https://bit.ly/3A4HJfR>



**SUBSCRIBE
TO THE
NITheCS MAILING LIST:**

