

# CHALLENGES AND OPPORTUNITIES FACING WOMEN IN SCIENCE AND TECHNOLOGY



*Nothing is to be feared it is only to be understood* – MARIE CURIE

## THE FIRST CHALLENGE :

*Philosophy is written in this immense book that stands ever open before our eyes (I speak of the universe), but it cannot be read if one does not first learn the language and recognise the characters in which it is written. It is written in mathematical language, and the characters are triangles, circles and other geometrical figures, without the means of which it is humanly impossible to understand a word; **without these philosophy is confused wandering in a dark labyrinth.**—*

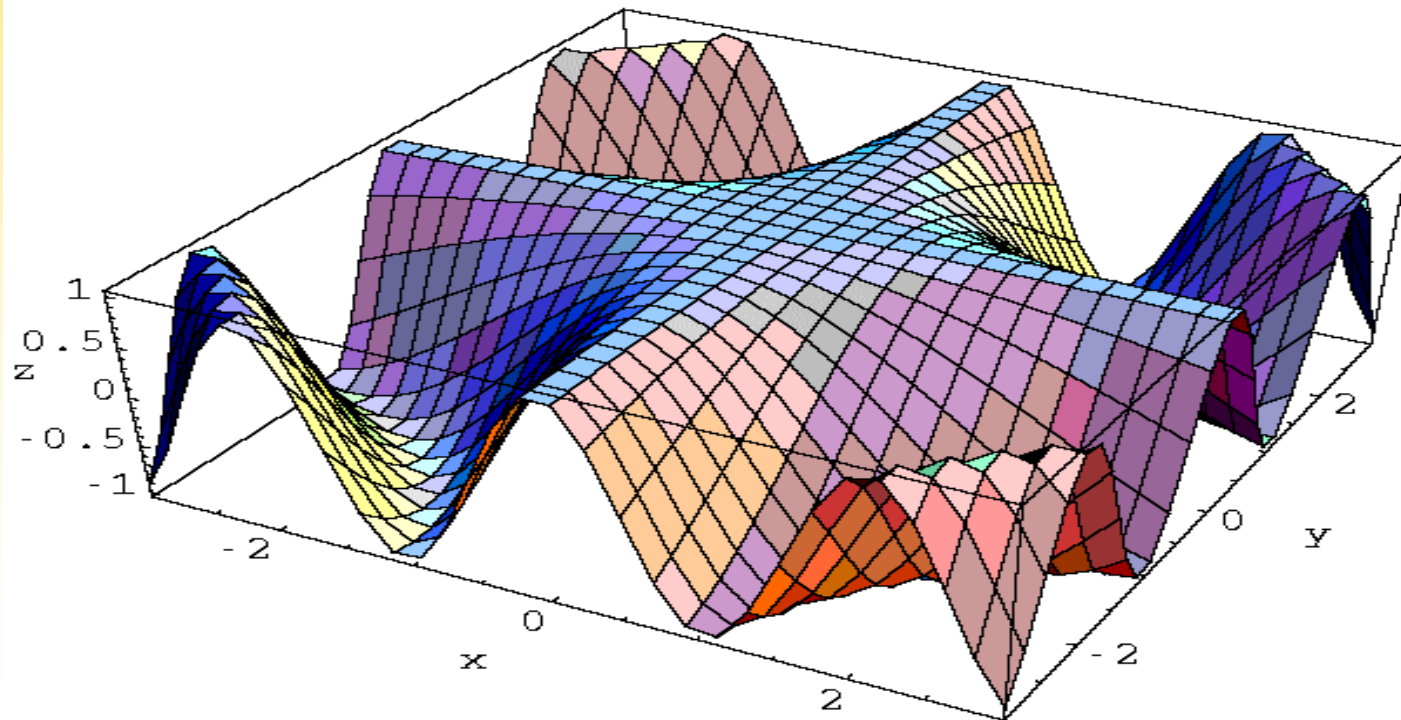
Galileo Galilei (1564-1642)



# WE OFTEN NEED SOME MATHEMATICAL TOOLS

*Mathematics is the queen ( & servant ! ) of all the sciences*

– C. Gauss (1777-1855)



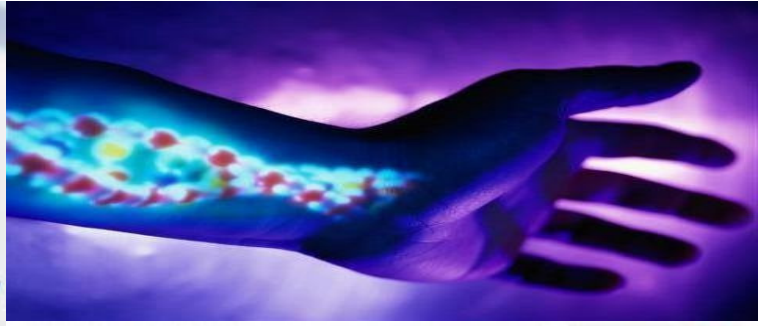
# CONFRONT CHALLENGES WITH UNDERSTANDING

Science & Technology can be tough anywhere in the world, not least SA:

*What is the use of teaching the Bantu child mathematics when it cannot use it in practice...That is quite absurd. – Hendrik Vervoed (1950's)*

*A nigger should know nothing but to obey his master - to do as he is told to do. Learning would spoil the best nigger in the world. Now if you teach that nigger how to read, there would be no keeping him. It would forever unfit him to be a slave. – 19<sup>th</sup> Century slave-owner, North America*

**But they are rewarding for society and the scientists !!!**



# FURTHER CHALLENGES

- not having access to resources
- not being taken seriously by teachers
- conflicting expectations
- boy trouble
- tall poppy syndrome!



# DISCRIMINATION AND HARASSMENT

- Becoming an exciting young adult can bring unwanted attention
  - Unwanted flirtation from male authority figures
  - Stares at your chest instead of eye contact and the “body check”
  - More serious harassment like assault or rape

Be sensible; Be informed

**DO NOT BE A VICTIM**

# TAKE ON THE CHALLENGES!

## *You need:*

- The will to learn
- Courage to ask questions and voice your ideas & understanding
  - learn to express yourself in writing !
- An open mind –your own views will be challenged
- Discipline to complete tasks
  - it can be 10% inspiration, 90% perspiration !
- Wisdom to take risks and to learn from mistakes
- To take care of yourself; pace yourself
  - have a healthy healthy mind AND healthy body!

# Opportunities

- UCT Science Faculty entrance and merit scholarship
- UCT open day in May every year
- National Research Foundation <http://www.nrf.ac.za>
- Postgraduate scholarships offices; Marie Curie Fellowships



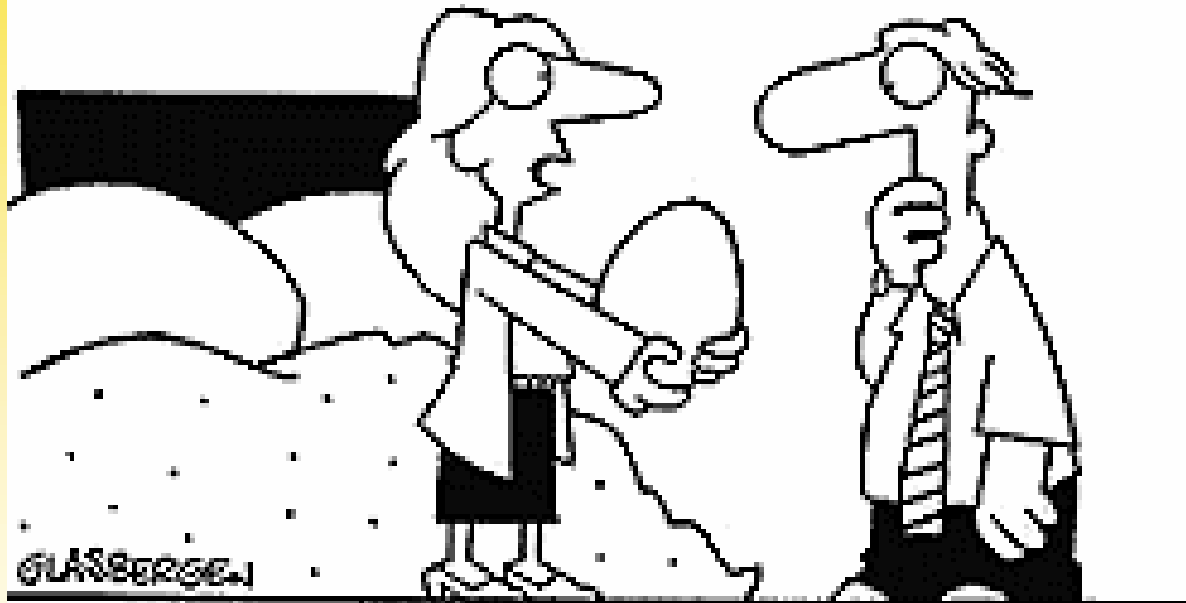
USE THE INTERNET TO LEARN MORE ABOUT

WOMEN IN SCIENCE, ENGINEERING AND TECHNOLOGY

*Equity Policies are in place !*

# Still MORE CHALLENGES

© 1997 Randy Glasbergen. E-mail: [rindyll@glasbergen.com](mailto:rindyll@glasbergen.com)



**"I'm a very busy woman! I don't have time to be pregnant for nine months, so I laid an egg."**

BEWARE: THE GLASS CEILING



# BUILDING OUR OWN ORGANISATIONS

## SAWISE :

- Supporting Women In Science and Engineering
- Building professional networks
- Developing leadership
- Enhancing the status of Women



<http://www.sawise.org.za>

# SAWISE ANGUS SCHOLARSHIP AWARDEES

(2000 - 2004 )



Thokozile  
Lewanika

Melinda  
Griffiths

Ilda  
Ladeira

*SCIENCE is NOT belief, BUT THE will TO find OUT ...* ANONYMOUS

THANK YOU !

DR. DIANE WILCOX

DEPT. MATHEMATICS & APPLIED MATHEMATICS,  
UCT

MAY 2006