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**Women in Physics transforming daughters to think tanks**

**Mmantsae Diale**

# Contents



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## Discovering talent

I was on sabbatical in a country where they have a program that follows children from pre-primary to high school with an aim of discovering talent.

## Addressing GBV

GBV is real - that is it is internationally recognized as pandemic that hinders women from progress in life.

## MENTOR

A mentor is

## Remembrance

GBV is real - that is it is internationally recognized as pandemic that hinders women from progress in life.

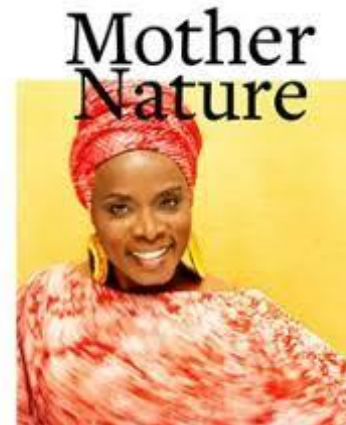
# Discovering Talent - The girl child



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Angeline Kidjo



# Discovering Talent - The girl child



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## NHLAMU effects



[www.gradesmatch.co.za](http://www.gradesmatch.co.za)





# Leading women farmers: Remove poverty



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## Women empowerment projects: Physics everywhere



2022/11/29

SARCHI: Clean and Green energy



# The idea: 1999



There are notably fewer women than men, worldwide, in PHYSICS.

Numbers also decrease with each step up the career ladder, in both the academic and research (industrial and government laboratories) environments.

In response to concerns about this situation, the IUPAP established a Working Group on Women in Physics in 1999 with a mandate to survey the situation of women in physics, worldwide, and suggest ways to improve it.

← Lets work together: from generation to generation





# EVENTS 2005

- **Steeringf Committee**
  - MD - CHAIR
  - IG , DG, ZB, PS, Sarah Buchner and DSI: Byren Archary and Tshepo Seekoe, JB Malherbe (UP)
    - Discussed possible issues, expected outcomes and conference programme.
- **Pre-conference workshop**
  - Held at High Performance Centre - 16 September 2005
- **Key Values identified:**
  - Diversity, inclusivity, Redress and Quality.

# Paris Conference







# Launch conference

- Haram Moral - How ar you able to manage so many women and no fights?
  - 65 delegates, 7 male - inclusivity,
  - World conference on Sustainability - Nigeria, Senegal, Sudan, Germany, Argentina, Brazil, USA represented
  - NRF, DSI, SAASTA, DoHelath, CSIR, Almost all Universities
  - Speakers: DG, Adi Patterson, Marcia Barbosa, Zorahr Ben Lakdar, etc.

# Nobel Prize in Physics



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Of 117 years of Nobel Prize, only 4 women won the PRIZE in physics

1903 Nobel Prize



**Marie Slowdoshka  
Curie**

1963 Nobel Prize



**Maria Goepert  
Mayer**

2018 Nobel Prize



**Donna Strickland**

2020 Nobel Prize



**Andrea Gets**

# 2020 Nobel Prize

- Since 1901, when the annual Nobel Prize in Physics was first awarded, it has been given almost exclusively to men, year after year.
- Donna Strickland, a Canadian who is an associate professor of physics at the University of Waterloo, received the prize on Tuesday for her work on high-intensity laser pulses.
- Dr. Strickland, 59, shared the award with the French physicist Gérard Mourou, 74,
- with whom she was working as a graduate student when they published a groundbreaking scientific paper in 1985; and
- Arthur Ashkin, 96, an American scientist who pioneered a way of using light to manipulate physical objects.



# Nobel Prize in Physics



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## SAD STORY

In 1967, Jocelyn Bell Burnell was a graduate student at Cambridge, working on a dissertation about strange objects in distant galaxies known as quasars.

She and her supervisor, Antony Hewish, had built a radio telescope to observe them. Data from the telescope scrolled out from a machine — a line in red ink, scrawling across 96 feet of chart paper each day.

**In 1974, They Gave The Nobel To Her Supervisor. Now She's Won A \$3 Million Prize**



# Physics Families

Prof Pieter Stoker

R Plastino and AR Plastino

2 Daughter in Physics

1 Grandson in Physics: Prof TPJ Kruger

Prof Simon Connel - Daughter in Physic.

Prof Phuti Ngoepe

Dr Phuti Ngoepe

← Lets work together: from generation to generation

# Addressing GBV



2022/11/29



SARCHI: Clean and Green energy



# Who is a mentor?

- A mentor is someone who has been there, done that, learned from the experience and is willing to share.
- A mentor is someone who helps other people to reach their full potential
- The emphasis is always on enabling and empowering the person to do things for themselves.



# Remember my mentors



**Mmane Mmule**

**My Mother and Victor.**

**Matlou and Kgobane**

**Prof Sophie Mogotlane**

**Prof Cushie Mathabe**

**Dr Botlhale Tema**





# Take home message

1. FOCUS
2. FOCUS
3. FOCUS
4. STUDY



JOSEPH SIMFUKWE

