

Career Development Workshops for Women in Physics



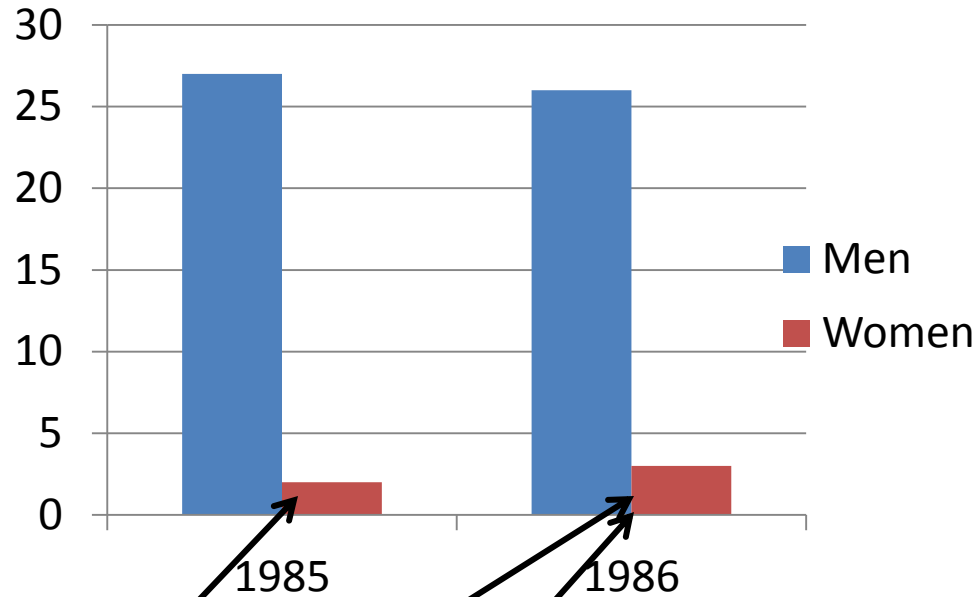
Shobhana Narasimhan

Jawaharlal Nehru Centre for Advanced Scientific Research
Bangalore, India



I entered Harvard University as a PhD student in physics in 1985

The graduate classes at Harvard were overwhelmingly male



Founded 'Women in Mathematical & Physical Sciences' at Harvard in 1989

Shobhana Narasimhan
Elizabeth Simmons
Katherine Benson

International Conferences on Women in Physics

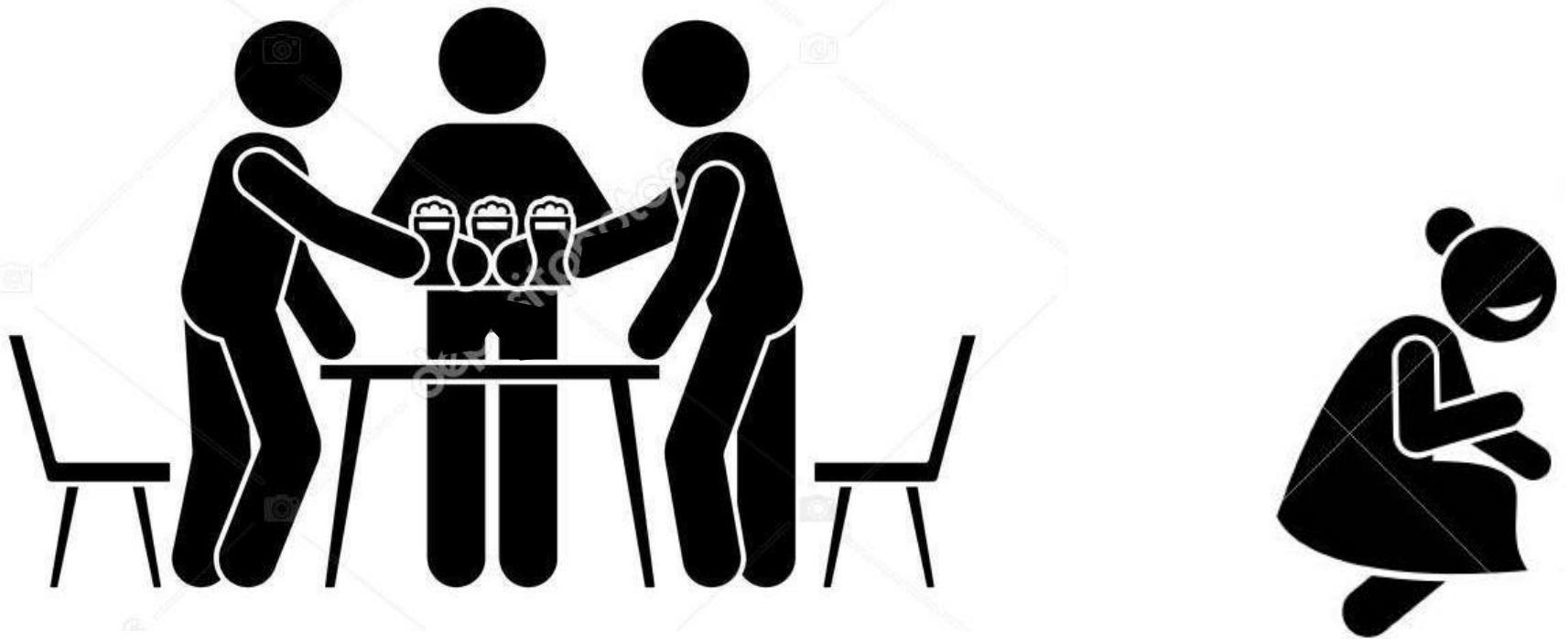


Seoul, Korea, 2008



Stellenbosch, South Africa, 2011

Challenges for Women in Physics



The importance of informal networks

Aims of Our Workshops

- Space for women to share experiences
- Acquire skills to rise in career
- Form community that can support one another

The Organizers



Elizabeth
Simmons
Michigan State/
UCSD

Shobhana
Narasimhan
JNCASR

Erika
Coppola
ICTP

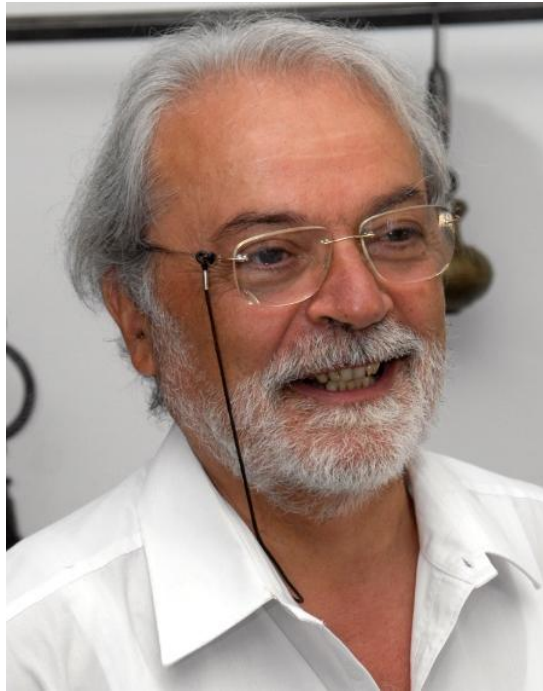
Nicola
Spaldin
ETH

Marie Chantal
Cyurinyana
U Rwanda

The Supporters (at ICTP)



Sandro Scandolo



Erio Tosatti



Fernando Quevedo

Career Development Workshops for Women in Physics

ICTP, Trieste: 2013, 2015, 2017, 2019



Career Development Workshop for Women in Science

ICTP-EAIFR, Kigali, Rwanda: 2018 (with OWSD)



The Participants & Lecturers

e.g., 2019



The Participants

e.g., 2017

Home country



Age



The Participants

“This is the first conference of any kind that I have attended...this is the first conference my husband allowed me to attend. He allowed me to attend this one because I told him that only women would be there.”



Importance of Involving Social Scientists



Anuradha Srinivasan
Cross-cultural learning



World Café format discussions



Maitri Gopalakrishna
Drama therapy



Drama workshops

Importance of Involving Men



Phys Rev Lett editor Sami Mitra
at the workshop, Trieste, 2013



Sekhar Chivukula at the
workshop, Kigali, 2018

Talks by inspiring role models



Fernando Quevedo talking to Jocelyn Bell Burnell
at the workshop, 2015

Talks by inspiring role models



Setsuko Tajima, 2013

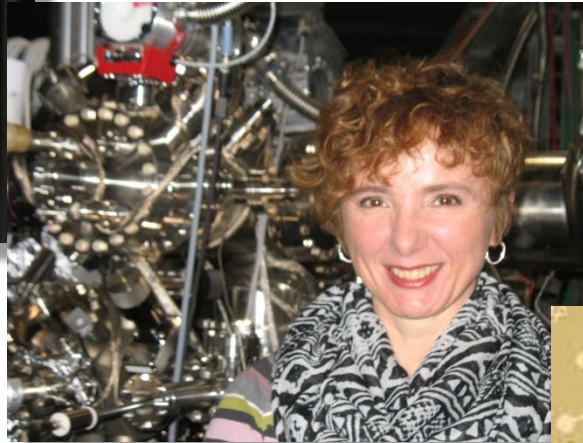


Sossina Haile , 2015

Sharing Our Stories



Rabia Salihu Said
Nigeria



Ivana Vobornik
Bosnia

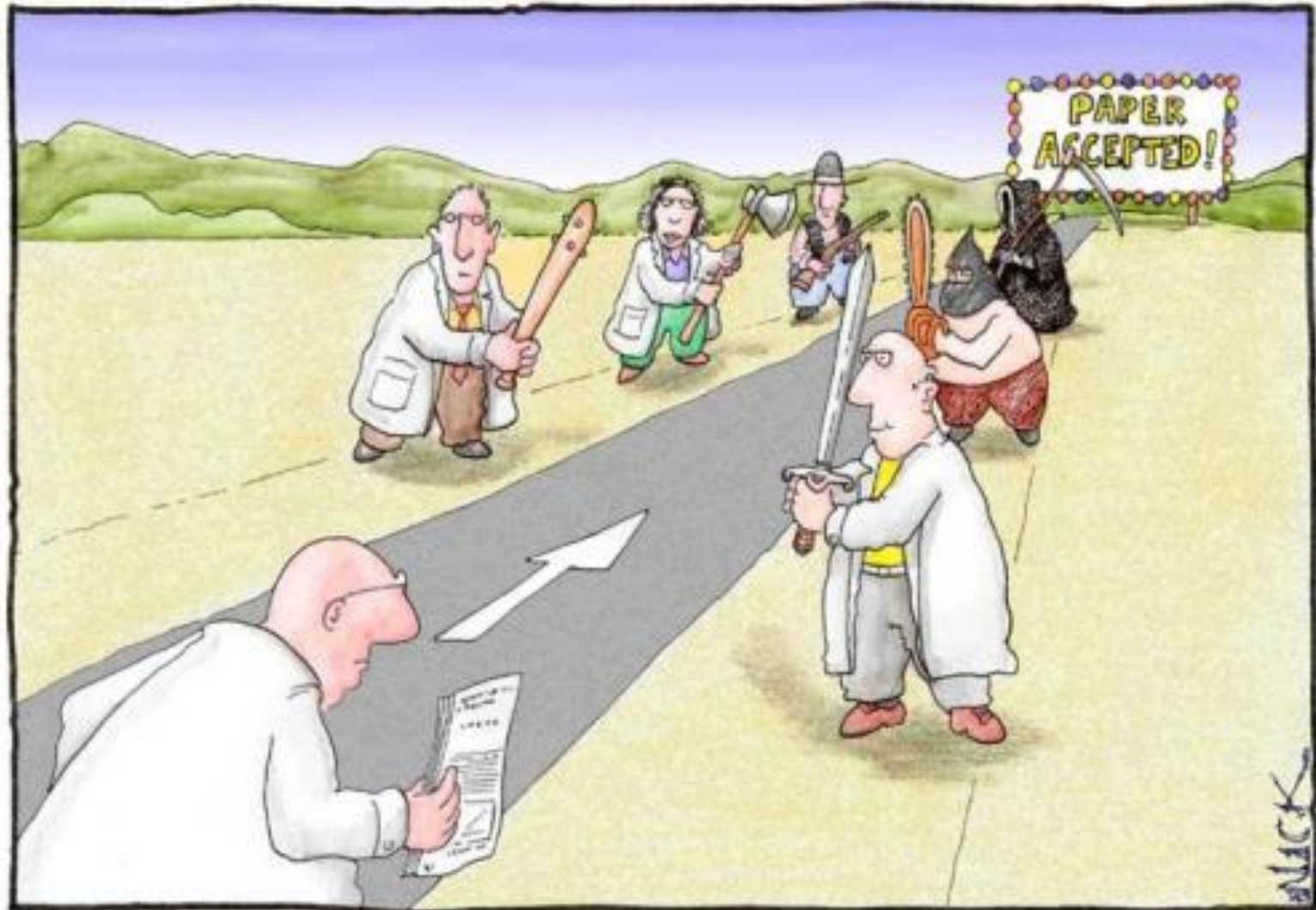


Shazrene Mohamed
Zimbabwe

World Café Format Discussions

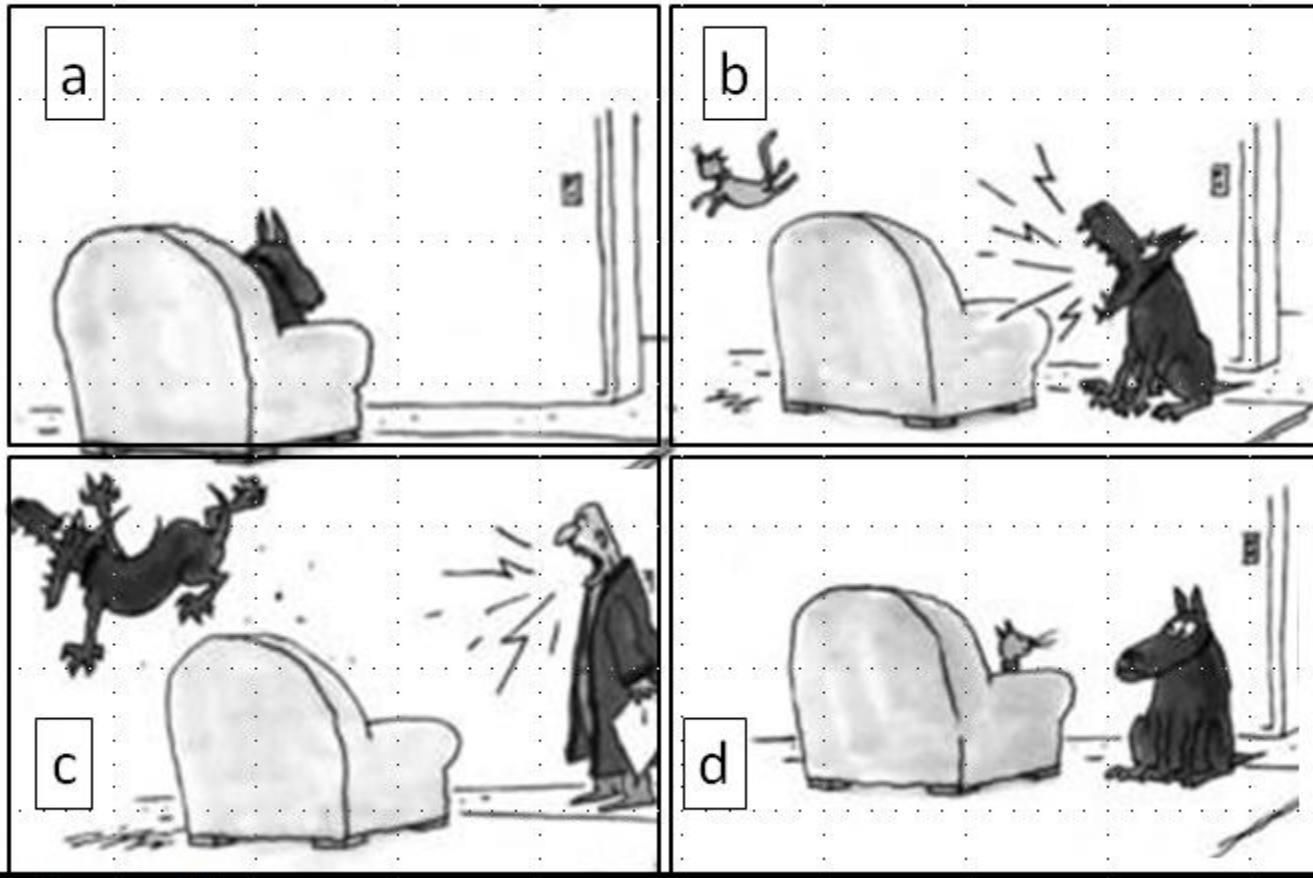


Workshop on Publishing Scientific Papers



Workshop on Publishing Scientific Papers

Arrange in a "Logical" Sequence



Workshop on Improving CVs

An excerpt from a CV (applying for an academic job) that could be improved

Extra curricular activities

- Participated in sir c v ramen national science competition and got 249 district rank.
- Participated national level Hindi talent competition got school second & district 3rd rank.
- Trained the operation of fire extinguisher and certified.

Strength

✍ Willing to responsible and dedicated in fulfillment of work

Hobbies

Sketching, Painting, Reading journals, Interested to search through Internet, cooking

|

Academic Profile

Workshop on Improving CVs



Workshop on Making Better Slides

**Black text on a white background
is the best choice for legibility**

Red on green is very hard to read -- impossible for some people

Purple on blue looks better, but is not optimal

Yellow on black is legible, but requires advanced design skills

Black on white is the best choice for effective slides

Workshop on Giving Better Talks

Your Body Language

- Dress appropriately
- Be aware of your posture



Workshop on Giving Better Talks

Making it Interesting

- Suspense and conflict
 - Very relevant examples that the audience will relate to
 - Strong, vivid language
 - References to history, art, music, etc.
 - Gimmicks?
-
- *Physical Presence:*
 - Try not to fiddle with anything or cause distraction
 - Address the whole room (and not just one person)
 - Move a little (but not too much)
 - Gesture and use your hands



Workshop on Giving Better Talks



Workshop on Negotiation



Drama Workshop: Challenges in the Workplace



Funding, Networking, Collaborations



Leveraging Social Media

The image shows a screenshot of a Facebook profile for Sandro Scandolo. The profile header includes the name "Sandro Scandolo", a search bar, and navigation links for "Shobhana", "Home", and "Create". Below the header, the profile picture and name "Sandro Scandolo" are visible, along with a "Timeline" tab and date filters for "2019" and "November". The "Intro" section identifies him as a "Senior Scientist, ICTP" and lists his education and work history: "Scientist at ICTP", "Studied Physics at Scuola Normale Superiore di Pisa", and "Went to Liceo F. Severi, Venezia Lido". It also states he "Lives in Trieste, Italy", is "From Venice, Italy", and is "Followed by 1,135 people".

The main post is from Sandro Scandolo, dated "10 hrs" ago. The text of the post reads: "Women scientist are twice more likely than men to say they have experienced discrimination (60% vs 30%). This is one of the many interesting (and sad) results of the first global survey on the Gender Gap in Sciences (30,000+ respondents from 159 countries, including myself!). The survey is an initiative of the Intl Science Council and is being presented today at ICTP." Below the text is a photograph of a presentation. In the photo, a woman in a green jacket is speaking into a microphone, and another woman in a black vest is standing next to her. They are in a room with an audience seated at tables, facing them. A presentation screen is visible in the background.

Below the profile intro, there is a photo of a man with glasses smiling and holding a sign that reads: "Science is not a boy's game, it's not a girl's game. It's everyone's game." The background of the photo shows a poster for the "WORLD ACADEMY SCIENCES" and other people at a conference.

Poster Session



POCO
SHOT ON POCO F1

An Immersive Video



Made by a physics undergraduate, Dindara Silva Galvao, from Brazil.

<https://www.youtube.com/watch?v=qx4BvB4rxTc>

Panel Discussions

e.g., How to pick a research topic

Women in physics in Africa

How to balance a career and family



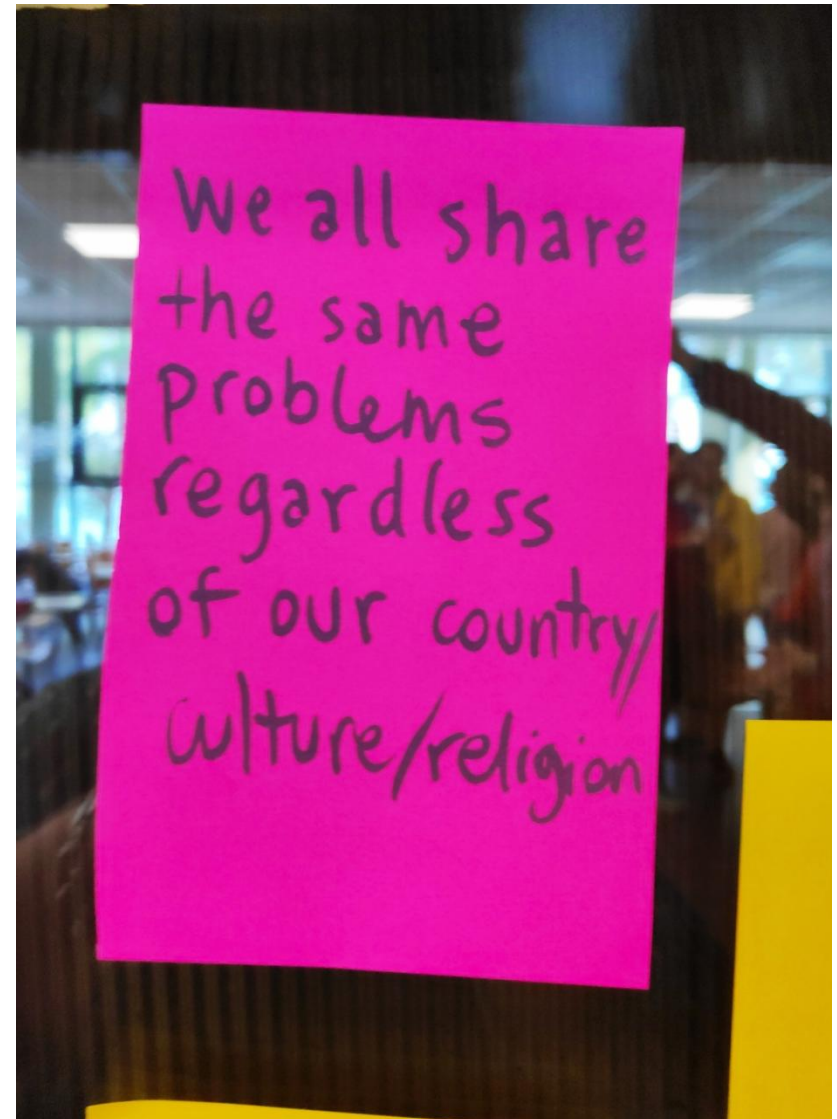
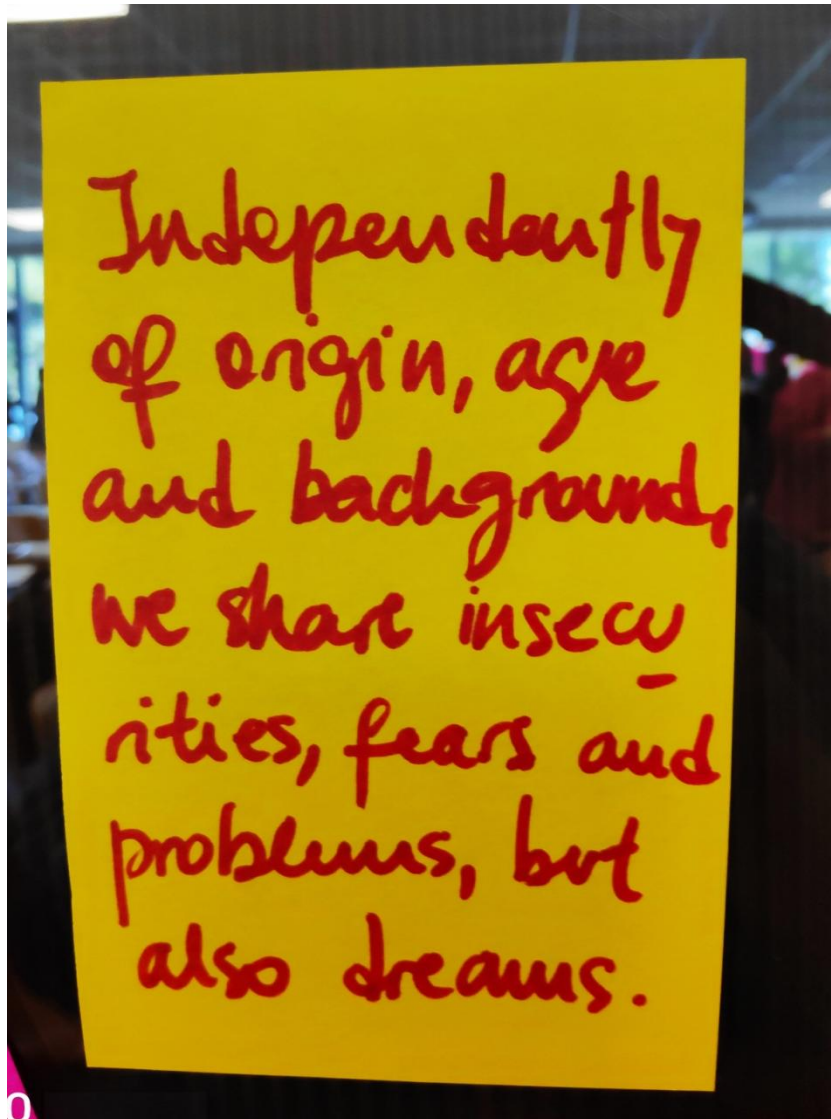
Exercise: Picking A Research Topic



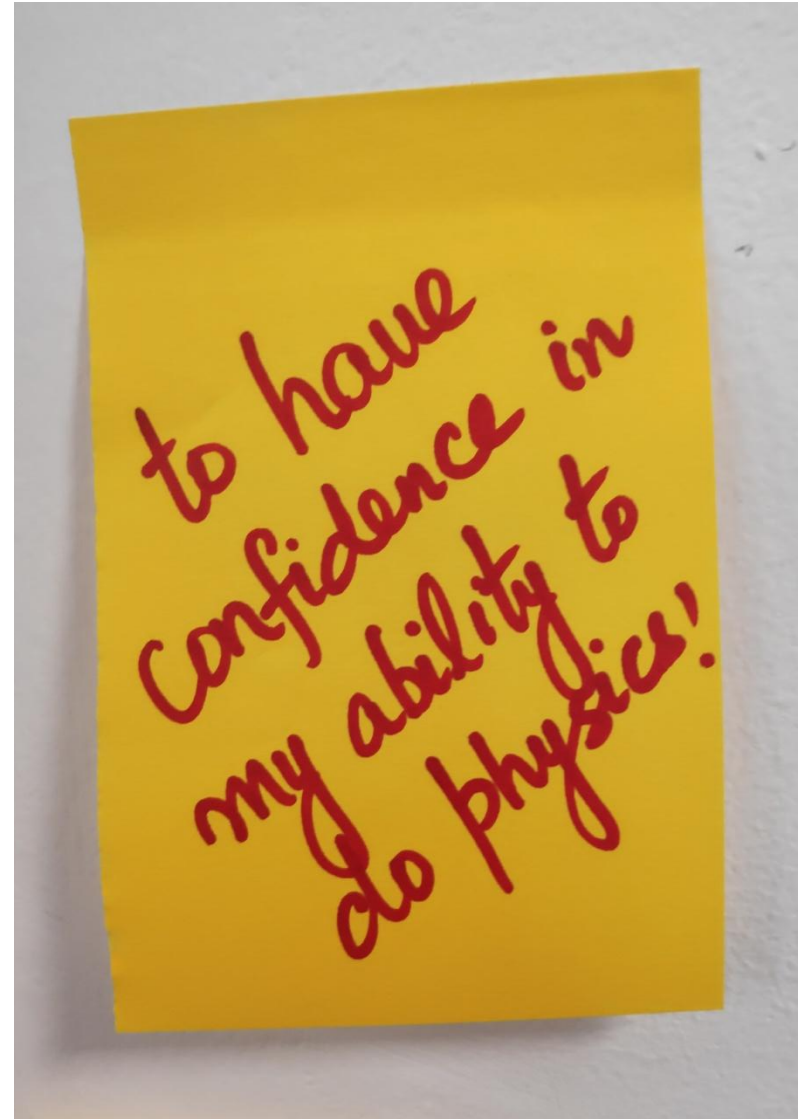
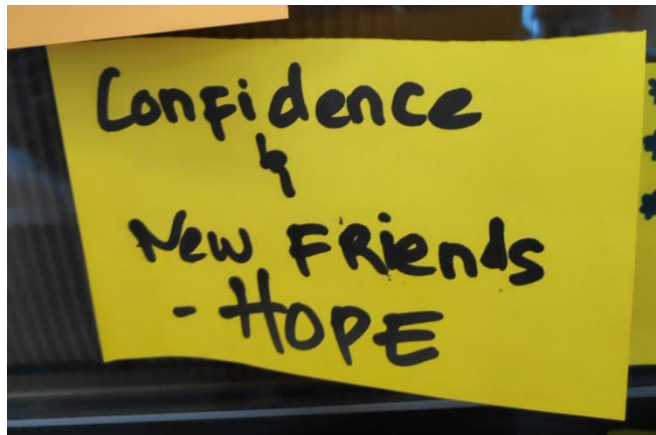
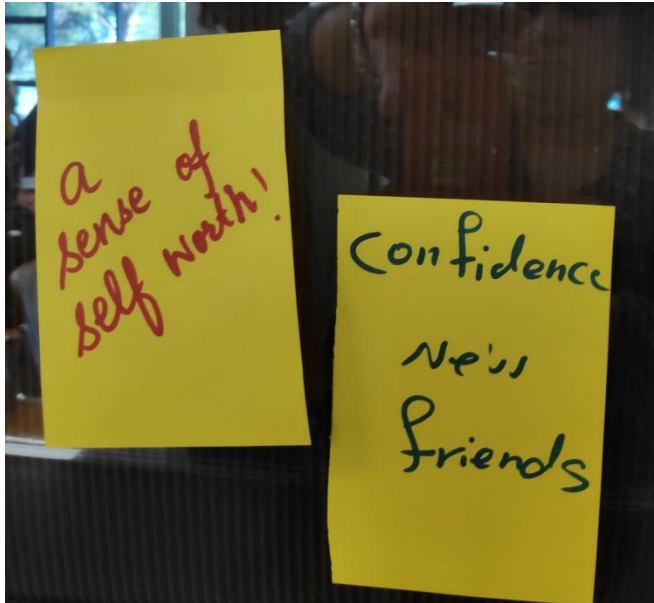
Participants Do Discuss Physics!



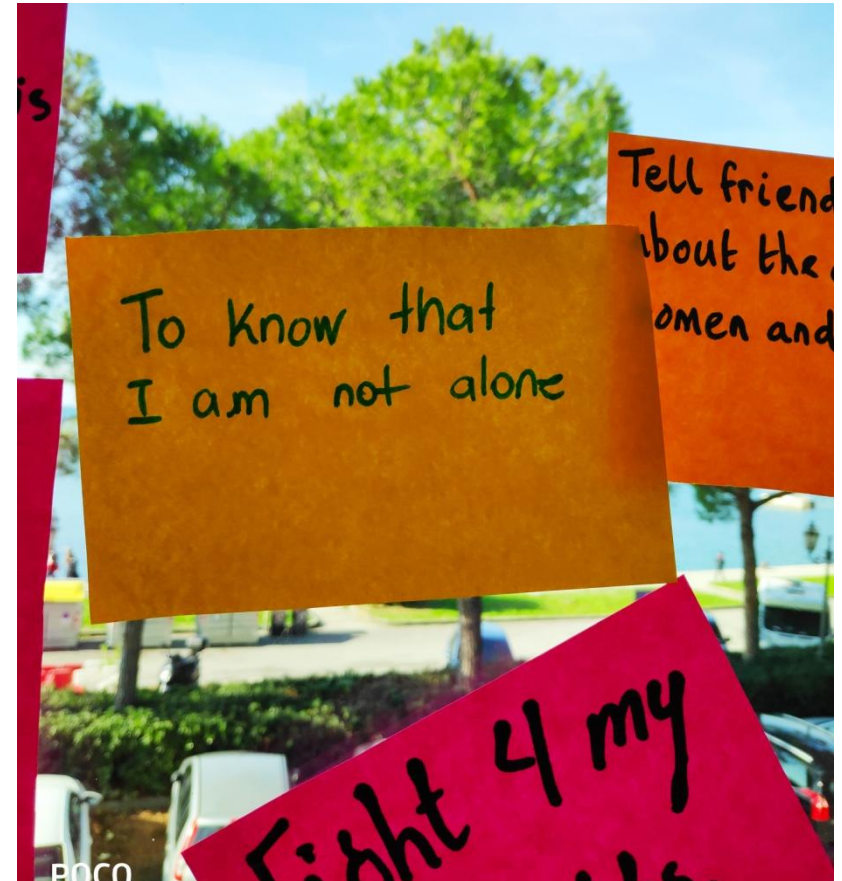
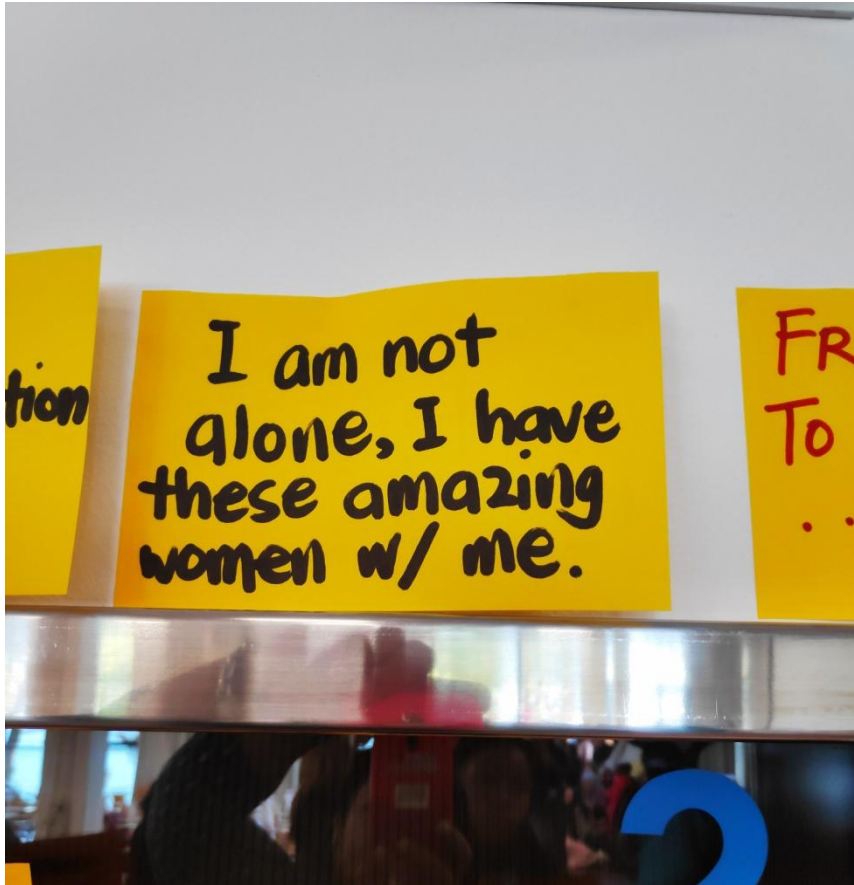
“What Are You Taking Away From the Workshop?”



“What Are You Taking Away From the Workshop?”



“What Are You Taking Away From the Workshop?”



Many Participants Have Gone on to Conduct Similar Workshops



e.g., Umida Baltaeva organized
“ACTUAL PROBLEMS OF MATHEMATICS AND
MECHANICS - MEETING OF WOMEN OF
MATHEMATICIANS IN CENTRAL ASIA - CAWMA - 2018”
In Uzbekistan

Many Participants Have Gone on to Conduct Similar Workshops



e.g., Annu Sharma organized
“Workshop On Opportunities and Challenges for
Women in STEM ”
at Kurukshetra University, 2018.

What Impact Do The Workshops Have?



Alexandra Davila Lopez
Peru

“I had never seen so many women physicists. I met a physicist who got her PhD at age 40, another who escaped her country through a tunnel. One woman had raised six children while she was gradually earning her PhD, another changed her topic completely to continue, another built a very successful career in industry. Their stories proved that I didn't have an excuse to not try. They had strong personalities, and I decided I wanted to be like that. Before, I was not so sure if I wanted to apply to a PhD program, but the workshop helped me see this is what I want, that it is possible, because I love physics, I love what I'm studying.”

A Story From a Workshop

Arti Kashyap & Zipporah Muthui Wanjiku



- Arti (from India) had ideas for research topics but not enough (wo)manpower.
- Zipporah (from Kenya) had a PhD fellowship but no research topic.
- They met at the Workshop in 2013.
- Zipporah's PhD work was then co-guided by Arti.
- They have since published 4 papers together.



“Sometimes I think that I am alone, but this workshop is a good antidote to that feeling.”