

Women in plasma physics (WIPP)

Mini-Symposium
13th November 2023

Dr Anne Mai-Prochnow

AIM

Develop strategies for equity in participation in AAPPS-DPP



Planning committee members

- Prof. Bharati Kakad
- Prof. Izumi Murakami
- Prof. Eunmi Choi
- Dr Anne Mai-Prochnow
- Dr Kanako Seki
- Dr Nazish Rubab
- Dr Choongki Sung
- Dr Lu Wang
- Dr Yuxue Zhang
- Dr Natsumi Iwata
- Prof. Mitsuru Kikuchi
- Dr Tony Murphy

Agenda WIPP workshop

Presentations

Dr Anne Mai-Prochnow Welcome and background information

Prof. Setsuko Tajima Vice Chair of AAPPS Working Group for Women In Physics (WIP)

Dr Mamiko Sasao “*Physics Education and Unconscious Gender Bias*”

Dr Daniela Grasso “*Is it possible to organize a gender-balanced conference?*”

Prof. Anisa Qamar “*Problems of Pakistani Women to Adopt Physics as a Career*”

Dr Weixin Guo “*Be brave enough to pursue your dreams---The growth experience of scientific researcher in universities*”

Dr Yasmin Andrew “*Reflections on a Fusion Plasma Physics career*”

Discussion

Small Groups

Background information



<https://www.ccl.org/articles/leading-effectively-articles/gender-equity-workplace/>

What is the problem?

- Traditionally there are fewer women in physical sciences than men
- Women are widely underrepresented in physics
- **Participation in conferences is low**

→ Increased diversity will be good for everyone

Common problems that women face after finishing a degree

- Are more likely than men to have their emails ignored when requesting information about potential PhD positions
(Milkman, K. L., Akinola, M., & Chugh, D. (2012). Temporal Distance and Discrimination: An Audit Study in Academia. *Psychological Science*, 23(7), 710–717. <https://doi.org/10.1177/0956797611434539>)
- Need to have published three more papers in top-tier journals than men to get the same academic job on average
(Wennerås, C., Wold, A. Nepotism and sexism in peer-review. *Nature* 387, 341–343 (1997). <https://doi.org/10.1038/387341a0>)
- Are more likely to leave their career due to harassment and bullying
(National Academies of Sciences, Engineering, and Medicine. 2018. *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24994>.)

Areas of unequal access to resources to help advance a career

- Adequate funding,
- Lab space,
- Travel budget and
- Students to help with research,
- **Being invited to speak at a conference or**
- Serving as editor of a journal

What is being done?

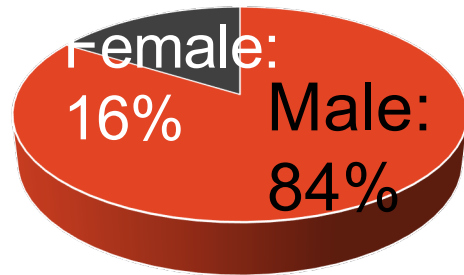
→ Increasing awareness is not enough

- The International Union of Pure and Applied Physics (IUPAP) held the first-ever international conference on women in physics
 - in Paris 2002
 - organized by IUPAP's women-in-physics group, every 3 years (until 2014)
 - over 300 participants from 65 countries about 15% men
 - Discussions focus on
 - how to attract girls into physics,
 - how to launch a successful career in physics, and
 - how to improve the climate for women in scientific institutions.
 - how to balance family and career,
 - how to get more women into leadership positions, and
 - how participation rates vary around the world.

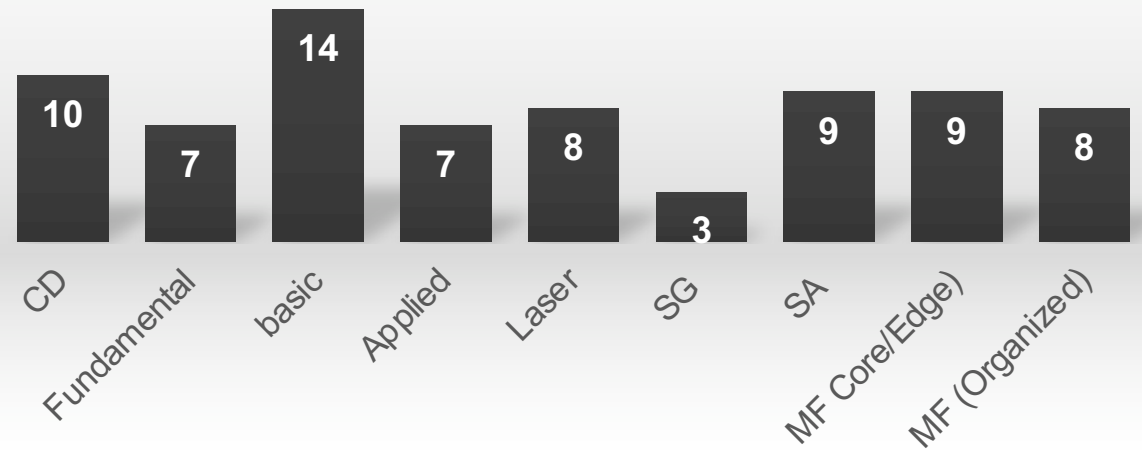
Statistics from AAPPS-DPP

2023 participation from contributed papers

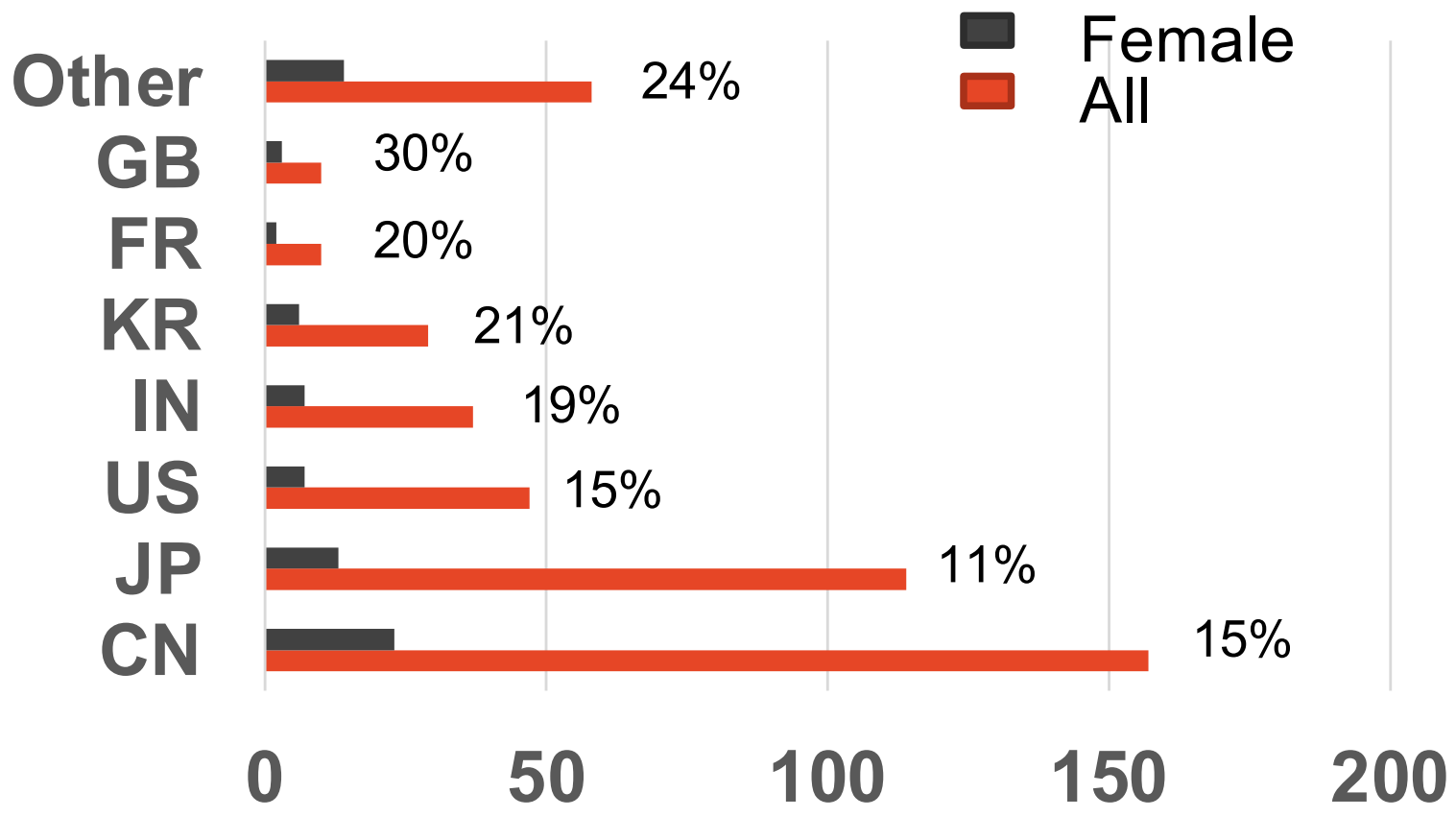
Distribution of Participants (Total 462)



Female participants in different fields



AAPPS-DPP2023 Female Distribution by Country



Prizes in AAPPS -DPP

- **S. Chandrasekhar Prize of Plasma Physics**
 - No female recipient out of 12 winners
- **AAPPS-DPP Plasma Innovation Prize**
 - No female recipient out of 4 winners
- **Young Researcher Award**
 - Three female recipients out of 50 winners
- **U30 Scientist and Student Award**
 - Seven female recipients out of 37 winners

Speakers

Prof. Setsuko Tajima

Vice Chair of AAPPS Working Group for Women In Physics (WIP)

Dr Mamiko Sasao

“Physics Education and Unconscious Gender Bias”

Dr Daniela Grasso

“Is it possible to organize a gender-balanced conference?”

Prof. Anisa Qamar

“Problems of Pakistani Women to Adopt Physics as a Career”

Dr Weixin Guo

“Be brave enough to pursue your dreams---The growth experience of scientific researcher in universities”

Dr Yasmin Andrew

“Reflections on a Fusion Plasma Physics career”

Discussion

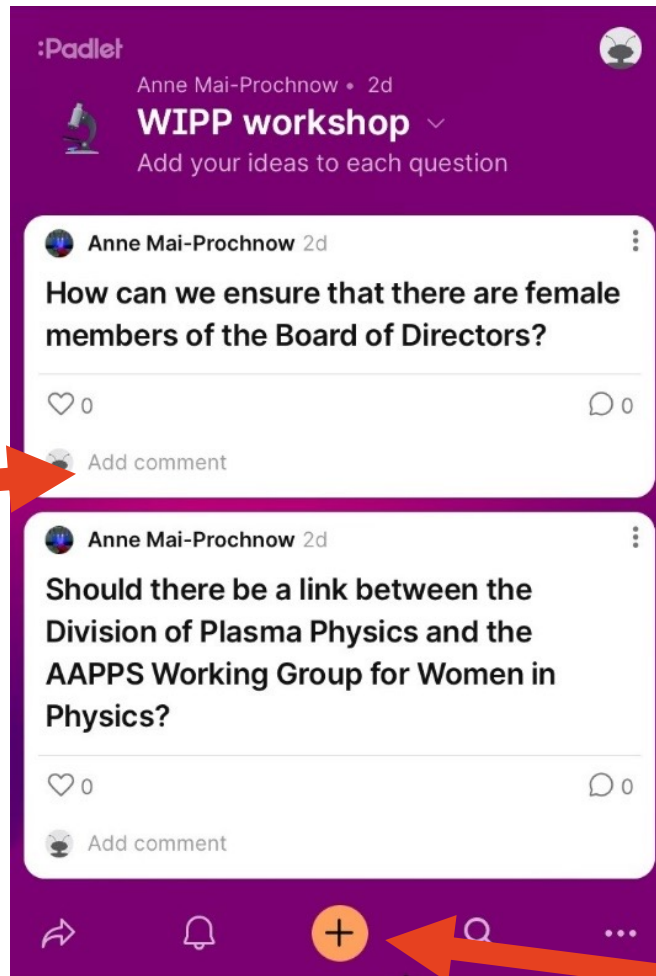
Small group discussion



- Small groups
- 20 minutes discussion
- Each group is to present to the whole group after the discussion
- 1 person to take notes (will be collected at the end)
- Or write notes onto Padlet (QR code)

Padlet

Add
comment/reply



Create new
question

Questions to consider

Questions:

1. How can we ensure that there are female members of the Board of Directors?
2. Should there be a link between the Division of Plasma Physics and the AAPPS Working Group for Women in Physics?
3. Should there be a DPP prize for women scientists?
4. Should there be formal targets for female invited and plenary speakers?

Outputs:

1. Ideas:
What do we want to do?
How do we achieve this?
2. Actions:
What are the next steps?
Who is responsible?
Timeline?
How is communication and reporting done?



Padlet QR code



<https://sydney.padlet.org/annemaiprochnow/wipp-workshop-xx9m09e2i069z5o7>