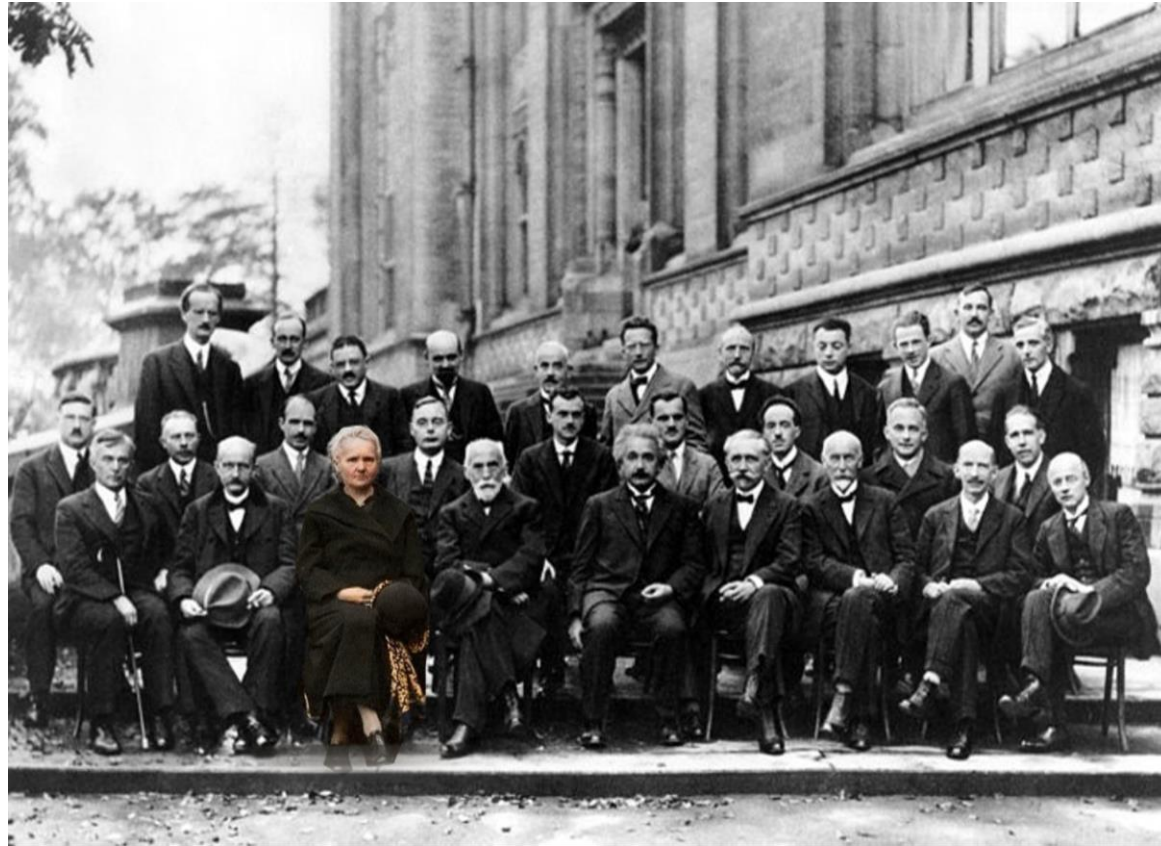


# Promoting Gender Equality in Physics: What we learned from research and implementation



**GEHE conference, September 17, online**

# A sociologist learning physics

- ✓ Sociologist and gender expert
- ✓ Study gender aspects within masculine organizations
- ✓ Collaborate with Prof. Yossi Nir, a physicist, WIS
- ✓ Chair, GENERA Network
- ✓ Head of Diversity and Inclusion office, Weizmann Institute of Science



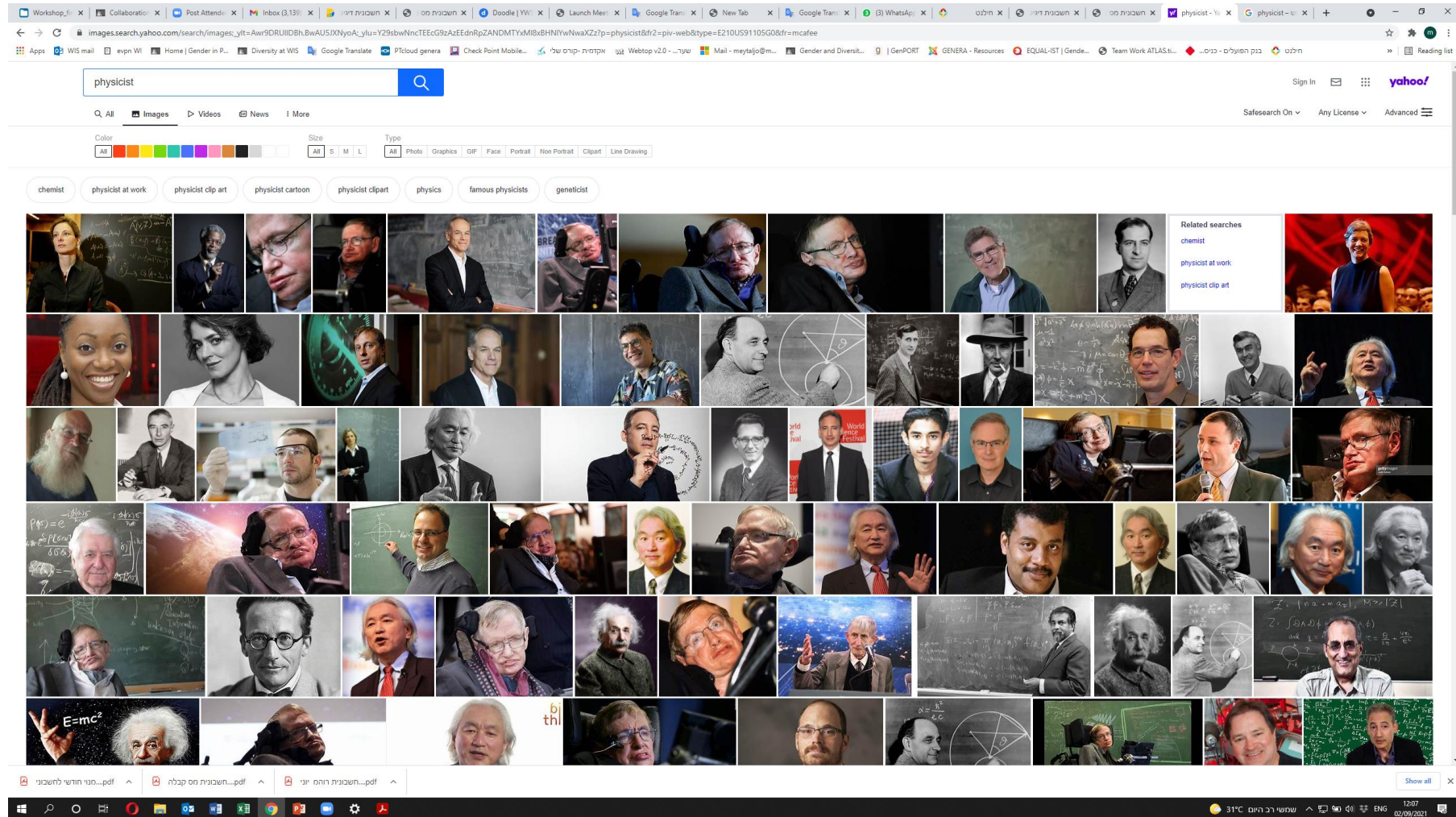
# The challenge:

## Physics as an academic field

- A male dominated field
- Gender imbalance, that persists
- Masculine culture, codes and practices
  
- Astrophysics?

# A male dominated field:

The image of “Physicist” on the internet (retrieved 2 September 2021)





# A male dominated field:

2018: Donna Strickland won the Nobel Prize in Physics for the first time in 55 years!


Four women won the Nobel Prize in Physics (1.9% of 216 laureates)


Science

## Rare Nobel Prize win by a woman a 'stark reminder' of sexism in physics


[f](#) [t](#) [e](#) [v](#) [i](#)

European physicist suspended over sexist remarks just a day earlier

 [Emily Chung](#) · CBC News · Posted: Oct 03, 2018 4:00 AM ET | Last Updated: October 3, 2018



Nobel Prize winner Donna Strickland smiles as she receives a standing ovation before speaking to the media during a news conference regarding her prestigious award in Waterloo, Ont., on Tuesday. She's the first woman to win the physics prize in 55 years. (Peter Power/Reuters)

[415 comments](#) 

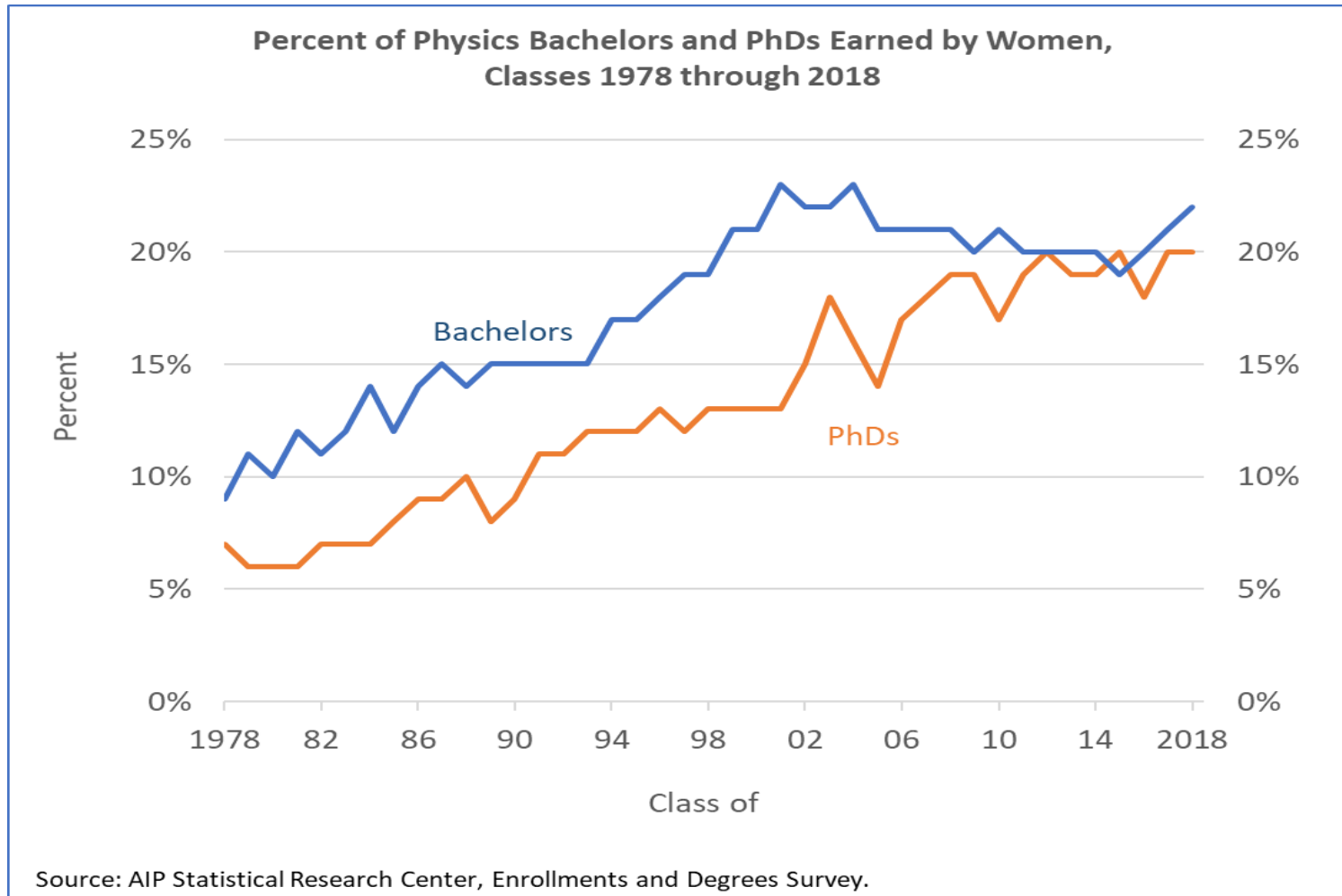
A woman won the Nobel Prize in Physics for the first time in 55 years. But while Tuesday's announcement is good news that could inspire young girls and women who aspire to be physicists, it highlights the sexism that endures in physics.

[Canadian Donna Strickland](#), an associate professor in physics at the University of Waterloo in Ontario, became the third woman ever to win what is widely considered the top honour in her field. She and her former mentor, Gérard Mourou, split half of the \$1.29-million award for an important discovery in the field of laser physics that led to the development of laser eye surgery to correct myopia.

Prof. Donna Strickland

# Gender imbalance that persists

Percent of physics Bachelors and PhDs earned by women in the USA 1978-2018



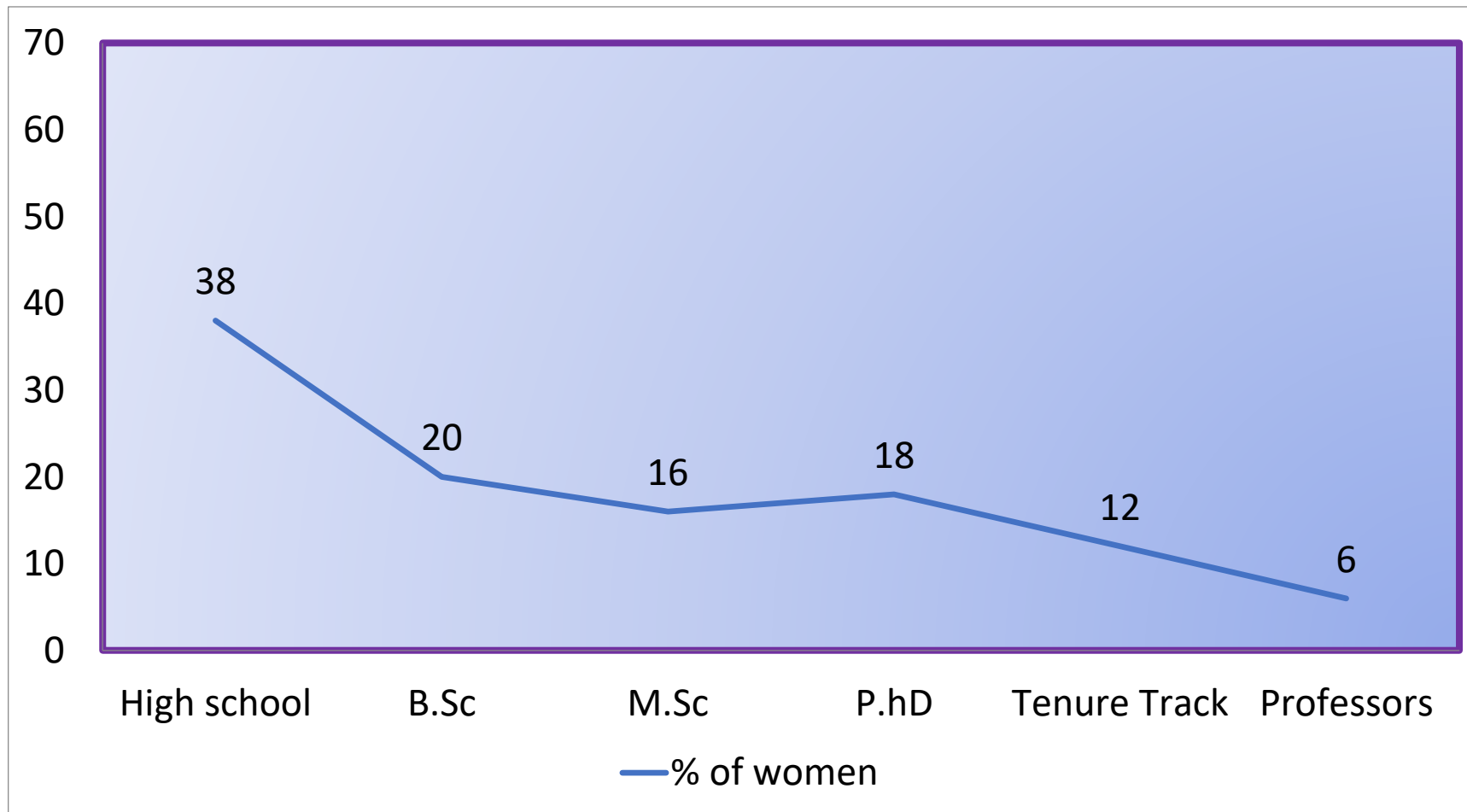
# Gender imbalance that persists

Percent of female faculty members in physics departments in the USA

Academic Rank	2010	2014	2018
Full Professor	8%	10%	12%
Associate Professor	15%	18%	21%
Assistant Professor	22%	23%	25%
Instructor / Adjunct	21%	23%	27%
Other Ranks	18%	20%	19%
Overall	14%	16%	19%

# Gender imbalance that persists

Percent of female in physics major from high school to academy in Israel, 2018





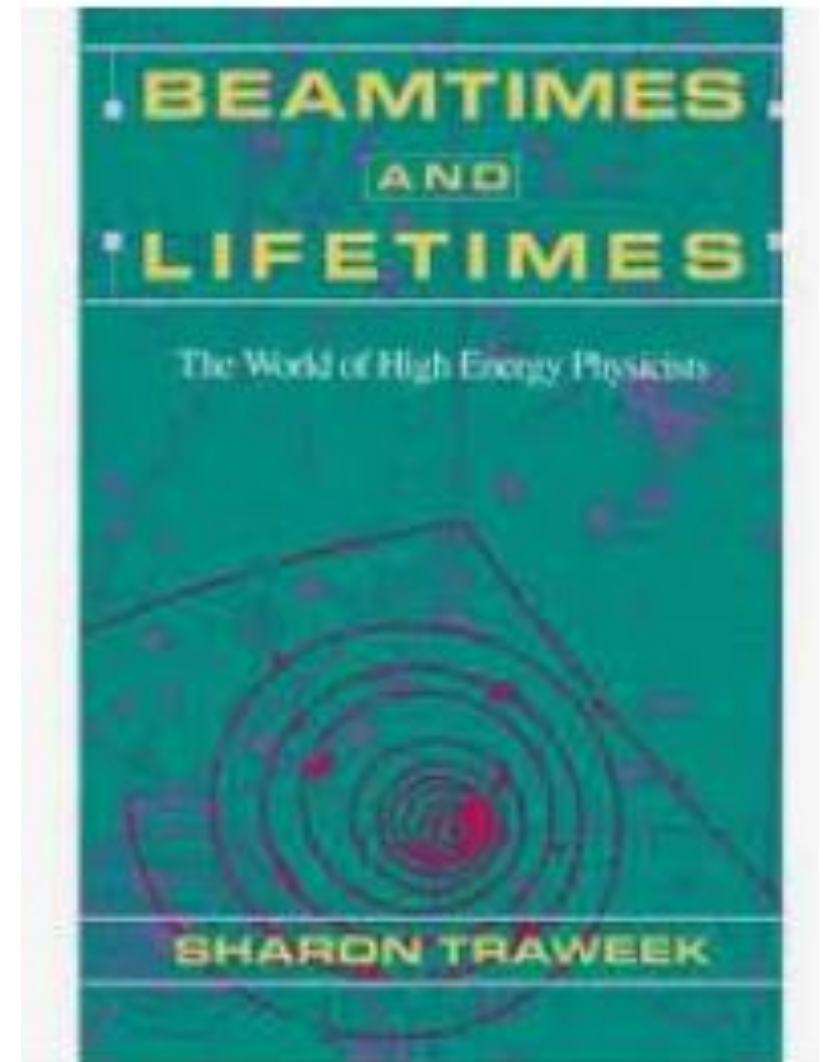
# Masculine culture:

**Sharon Traweek (1988):**

- ✓ **Masculinity** is an organizing principle of the physics laboratory.
- ✓ Science is a field of “**individual great men.**”
- ✓ One must be **committed, charismatic, highly motivated, dominant, and aggressive.**

**“Only the blunt bright bastards make it.”**

**30+ years later, in our study, the masculine culture persists.**



# Masculine culture:

Prof. Strumia scandal  
represent a generation?

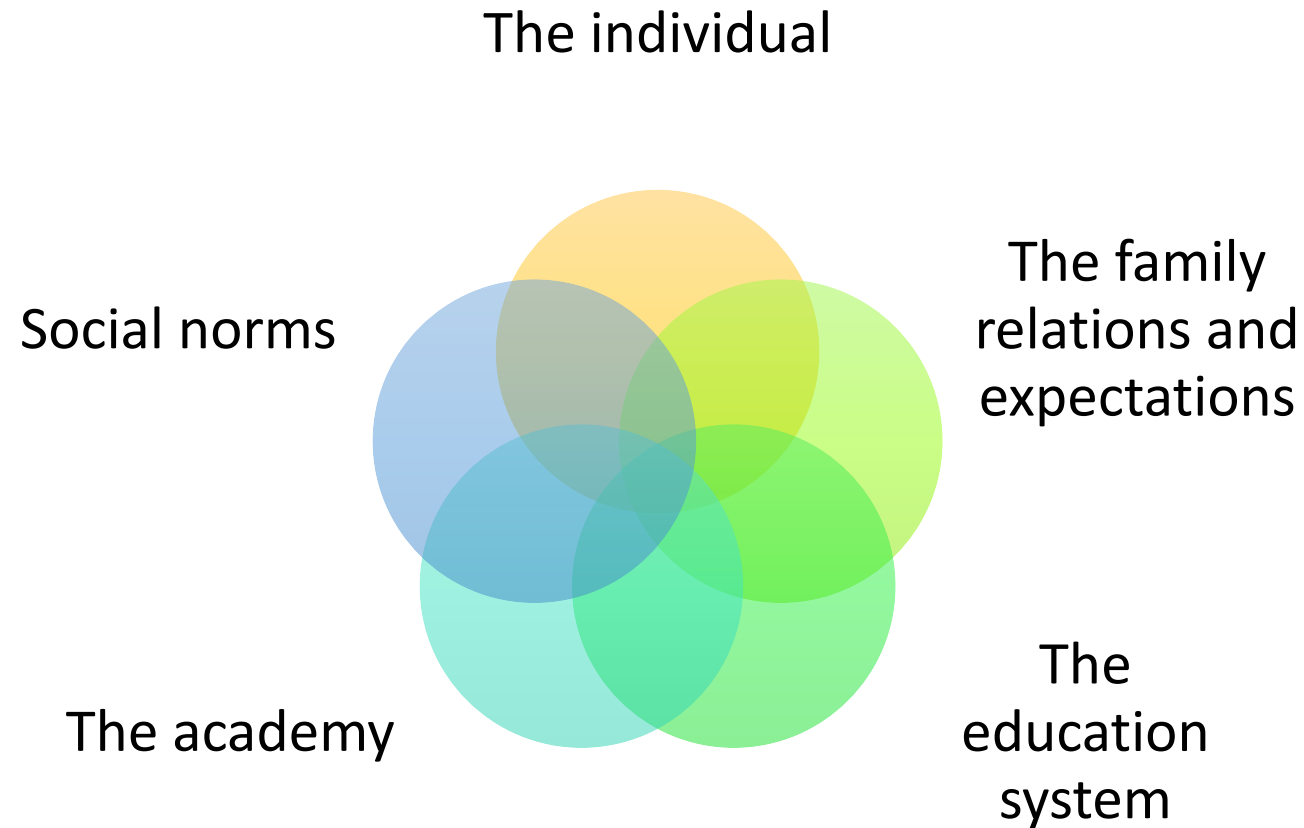


Senior scientist :said that physics was “invented and built by men”.

He also said that male scientists were being discriminated against and that men were being passed over for jobs in favor of women based on “*ideology rather than merit*”.

(September 2018)

# The gender imbalance in physics is a multilayered problem



**A multilayered problem with a multilayered answer – no silver bullet!**