From COST to GenHET

Initiatives in gender in HET

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Back in 2012:

Reasons why there are so very few women in String Theory?

Promote the involvement of women string theorists

Funding scheme?

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COST: Funds networking and cooperation

Main objectives:
- Coordinate and reinforce collaborations
- Foster cross-disciplinary activities
- Promote knowledge transfer and scientific culture
- Impact in Science and Society

The involvement of women string theorists in gender issues started with an EU project that ran from 2013 to 2017

MPNS COST Action MP1210

The String Theory Universe

Descriptions are provided by the Actions directly via e-COST.

Although String Theory has been around for more than forty years, it has never been so important for physical reality as it is now, due to its novel outstanding applications to different areas of Physics and Mathematics.

While the Large Hadron Collider (LHC) narrows down the experimental limits on supersymmetric particles and satellite missions such as WMAP and PLANCK probe the very early Universe, this Action aims at creating a strong European Network focused on fundamental, forefront research exploring the role played by String Theory in Particle Physics, Cosmology and Condensed Matter Physics.

The large majority of European world experts in String Theory will be involved in this Action. This will ensure a top quality research output, achieved through an intense exchange of expertise, intra-European collaboration and co-organization of scientific activities.

The Action will ensure fair gender representation and simultaneously adopt specific measures for promoting the involvement of women scientists at all levels. Moreover, it will foster the active participation of junior excellent scientists.

The outcome of the Action is expected to have a positive impact on both science and society at a European level, in line with the strategic priorities of COST.

Materials, Physical and Nanosciences COST Action MP1210

- **Description**
- Parties
- Management Committee

General Information*

Chair of the Action:
Prof Silvia PENATI (IT)

Vice Chair of the Action:
Prof Yolanda LOZANO (ES)

Science officer of the Action:
Dr Fatima BOUCHAMA

Administrative officer of the Action:
Ms Milena STOYANOVA

Downloads*

Action Fact Sheet
Download AFS as .RTF

Memorandum of Understanding
Download MoU as PDF

Annual Progress Conference Report

Core Group composition

S. Penati
(Milano-Bicocca)
Chair

Y. Lozano
(U. Oviedo)
Vice-Chair

J. Erdmenger
(LMP Munich)
WG1 Leader

M. Petrini
(Paris VI)
WG2 Leader

R. Emparan
(U. Barcelona)
WG3 Leader

A. Ceresole
(INFN Torino)
WG4 Leader

M. Lledó
(U. Valencia)
WG5 Leader

G. Honecker
(U. Mainz)
ESR respons.

M. Berkooz
(Weizmann I.)
WEB manager

S. Vandoren
(Utrecht U.)
Financial Rap.

R. Argurio
(UL Bruxelles)
Postdoc coordinator

N. Obers
NBI Copenhagen
Financial rapporteur

Under this Action we:

- Promoted the active participation of women (leading positions, speakers, members of scientific and organizing committees)
- Learnt and tried to make the community aware of many important studies about women in STEM
  - Gender events as part of each major scientific conference/ workshop
  - “Workshops on String Theory and Gender”
  - Participated in “Gender Summits”
- Conducted several surveys to know the opinions of the community
- Collected useful statistics

Studies of women in STEM:

The cause of the gender inequality in physics - and in science in general - is a complex issue and cannot be based on a single factor

It results from an interplay of many institutional, social, cultural and individual factors:

- Gender stereotypes and implicit biases
- Traditional image of an ideal scientist
- Understandings about “appropriate” and “natural” male and female interests, introduced at early age and continued during adolescence and adulthood

- Cultural expectations towards women's role within family, with priority given to male career
- High demand of full dedication to science —> Challenges in family-work conciliation
- Masculine working culture
- Lack of female role models
- Covert discrimination in the form of "old boys" networks
- Microagressions (subtle forms of different treatment, that usually prevail over open gender discrimination)
- Unfair distribution of resources
- Biased hiring practices
- Bullying and harassment

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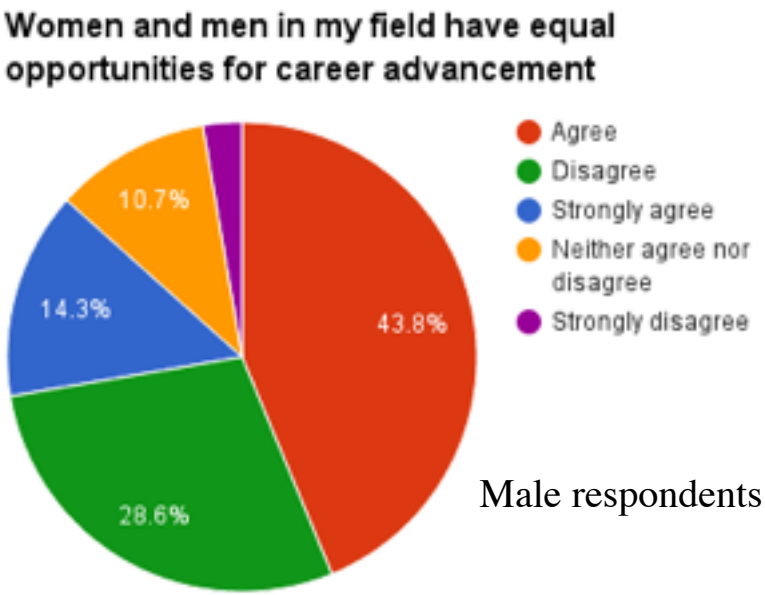
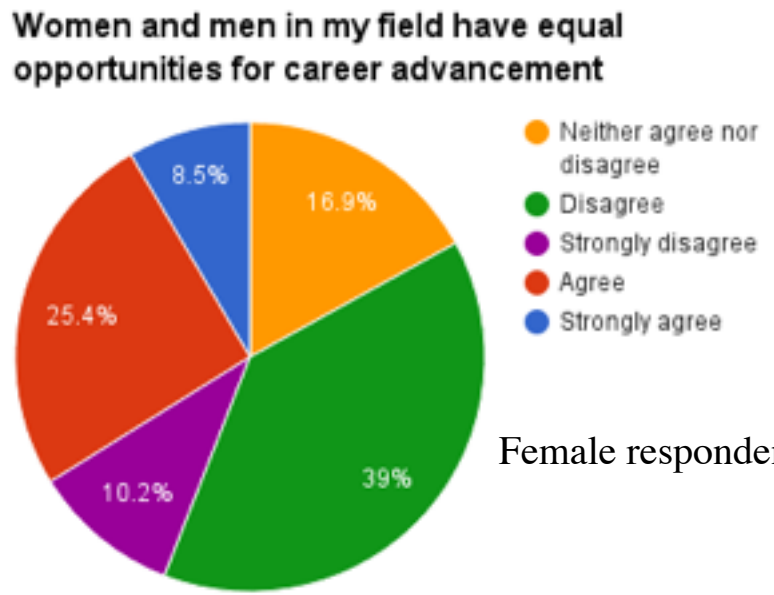
Results of surveys:



Male respondents

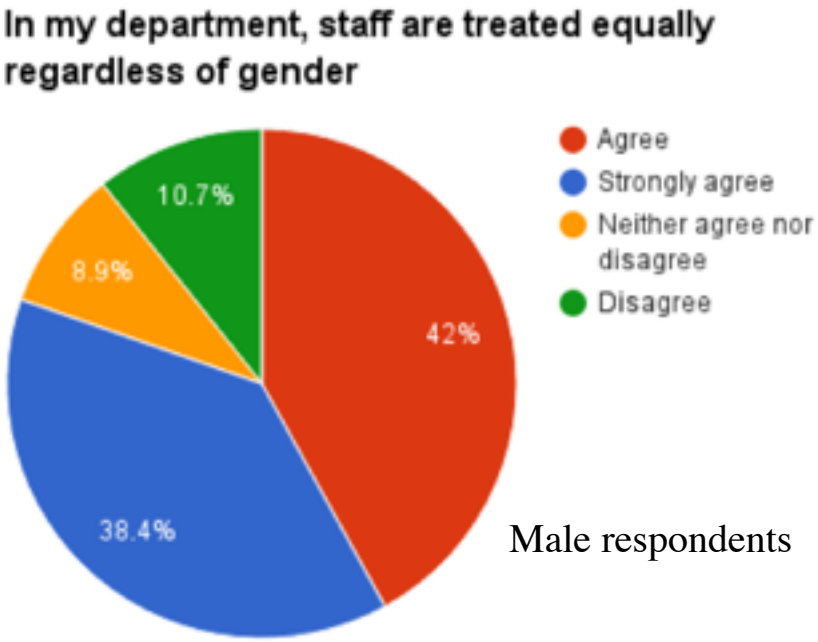


Female respondents

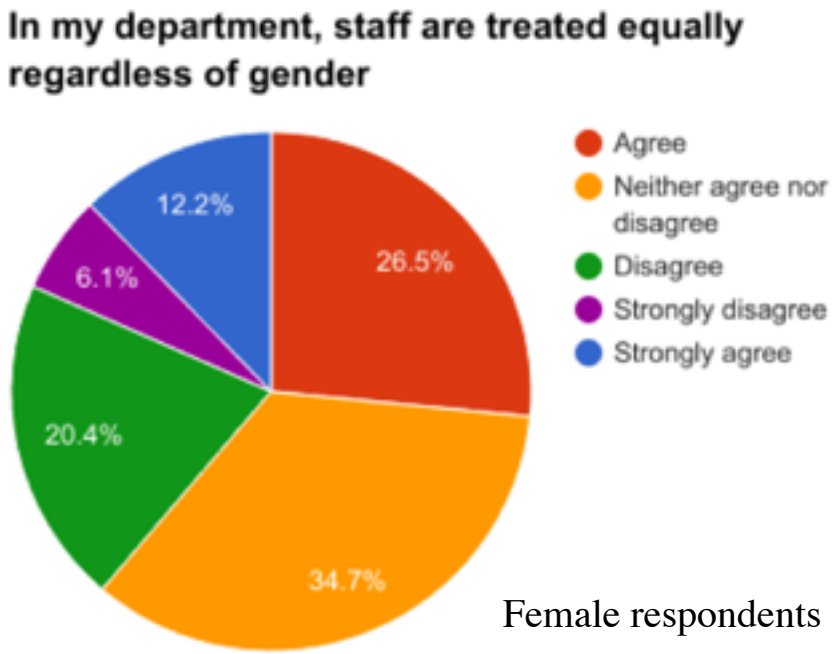
Male: 58.1% agree
31.3% disagree

Female: 33.9% agree
49.2% disagree

Many respondents argue that although on paper both genders are treated equally, conscious and unconscious biases, pregnancy and childbirth, and different expectations from society about caring roles are main sources of differences. Some men perceive better opportunities for women because of specific policies to promote them



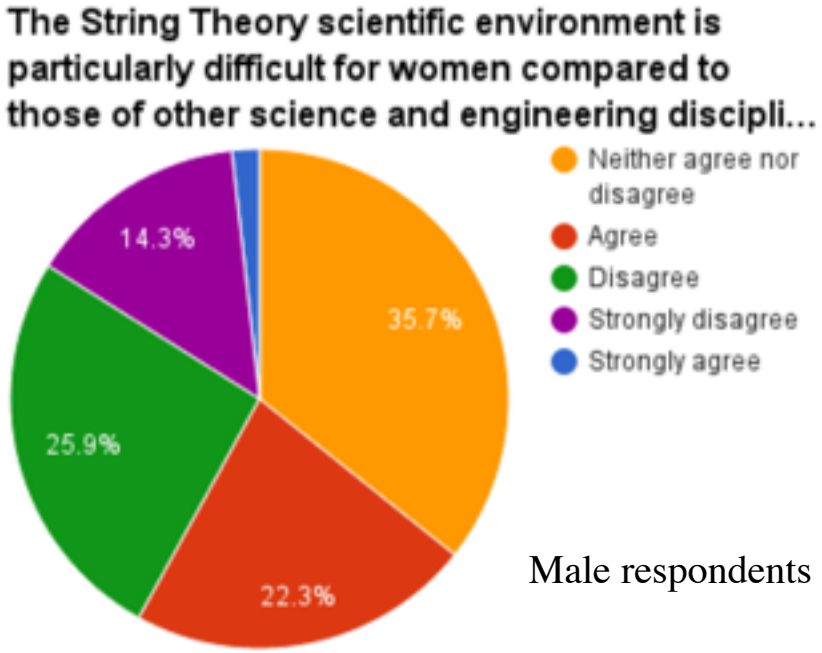
Male respondents



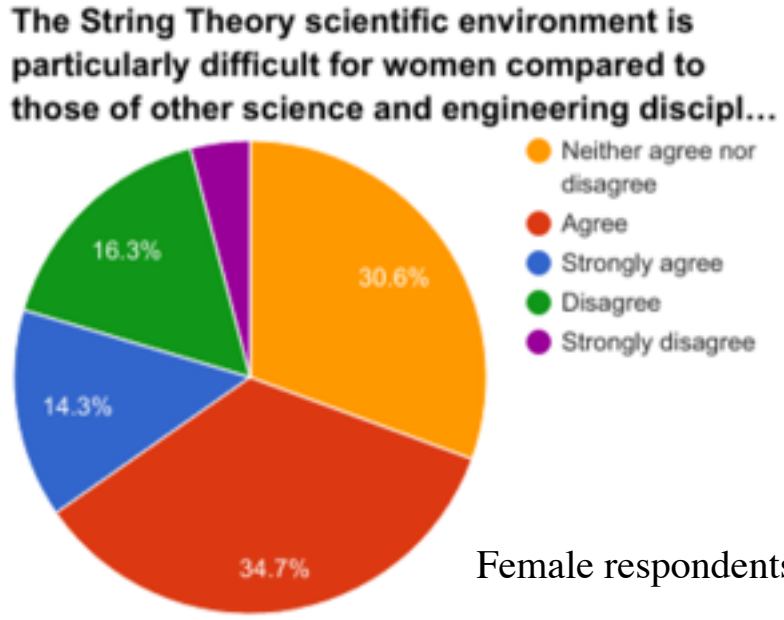
Female respondents

Male: 80.4% agree
10.7% disagree

Female: 38.7% agree
26.5% disagree



Male respondents

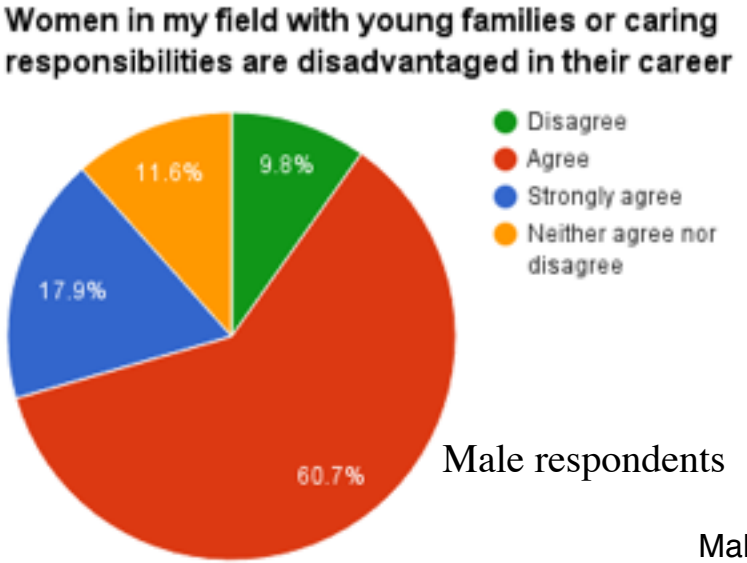


Female respondents

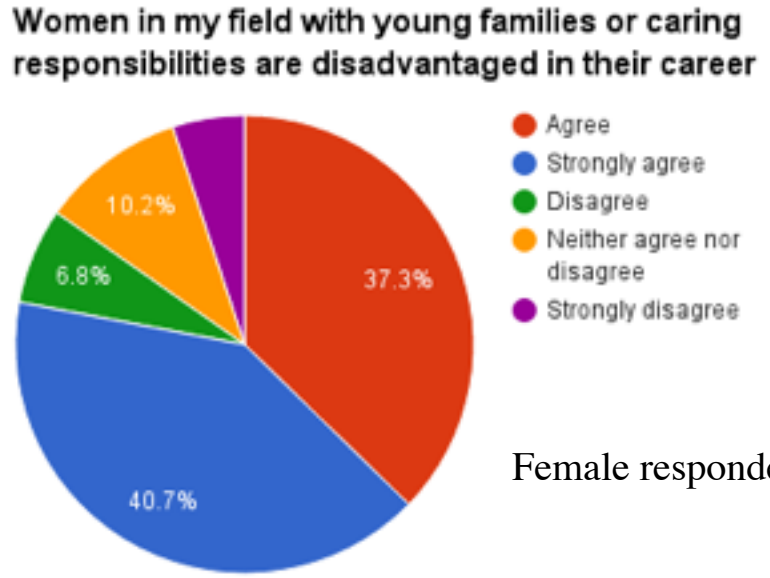
Male: 24.1% agree
40.2% disagree

Female: 49.0% agree
20.4% disagree

This question was intended to identify aspects of our field that could be particularly “problematic”. Respondents alluded to the already present disparity, which may psychologically disadvantage women, the long post-doc period, the lack of experimental tests in String Theory, which resonates with the unconscious bias, by associating relevant results with particular authors



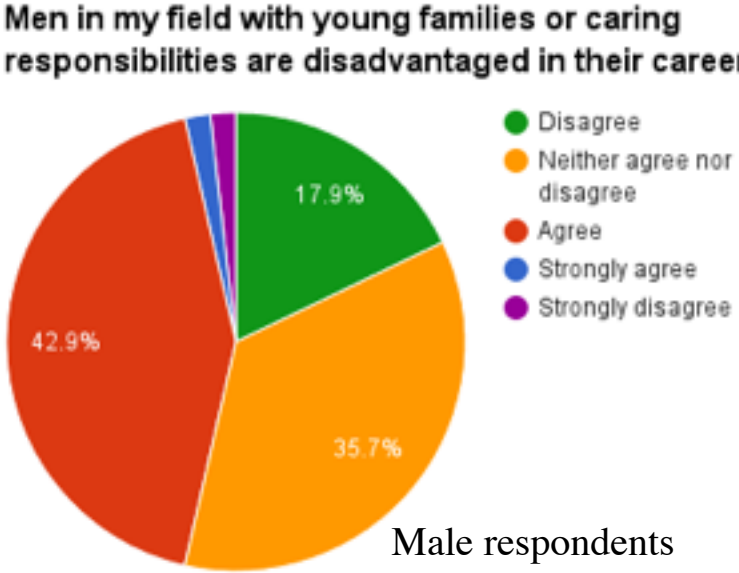
Male respondents



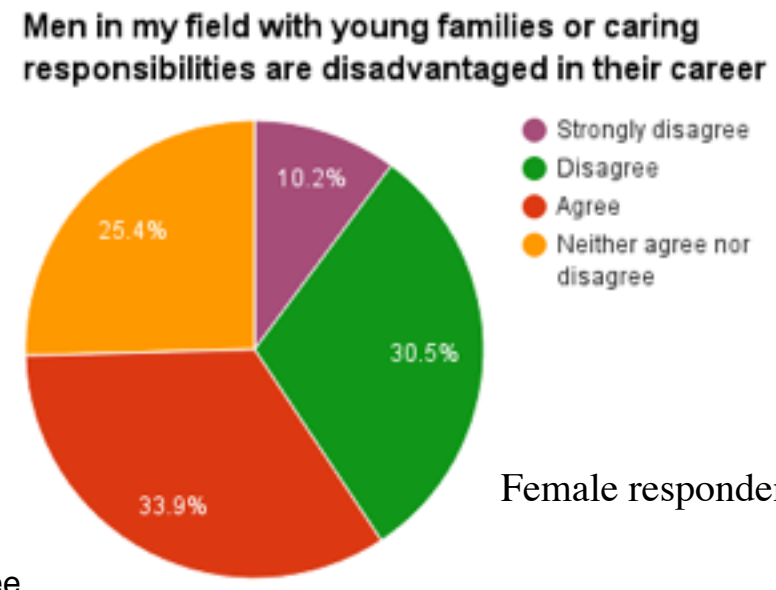
Female respondents

Male: 78.6% agree
9.8% disagree

Female: 78% agree
11.8% disagree



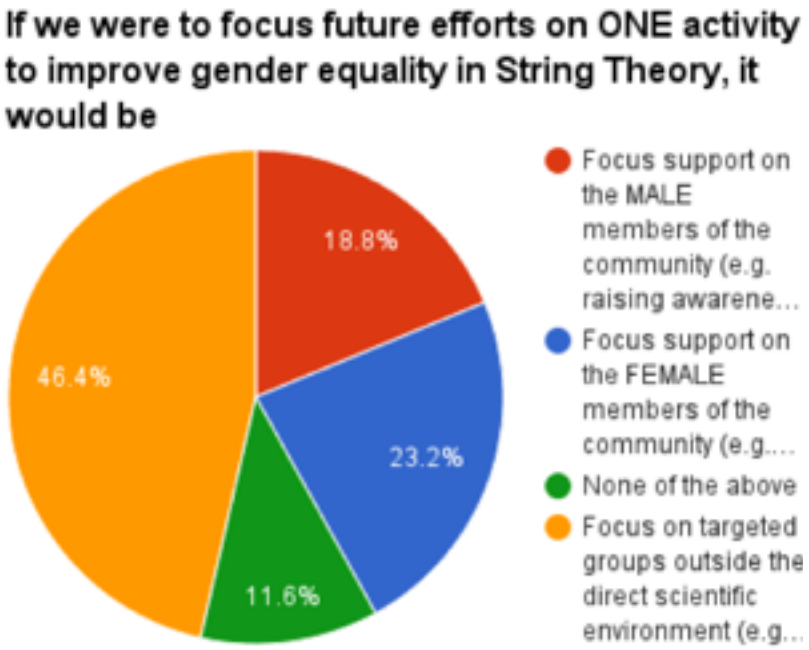
Male respondents



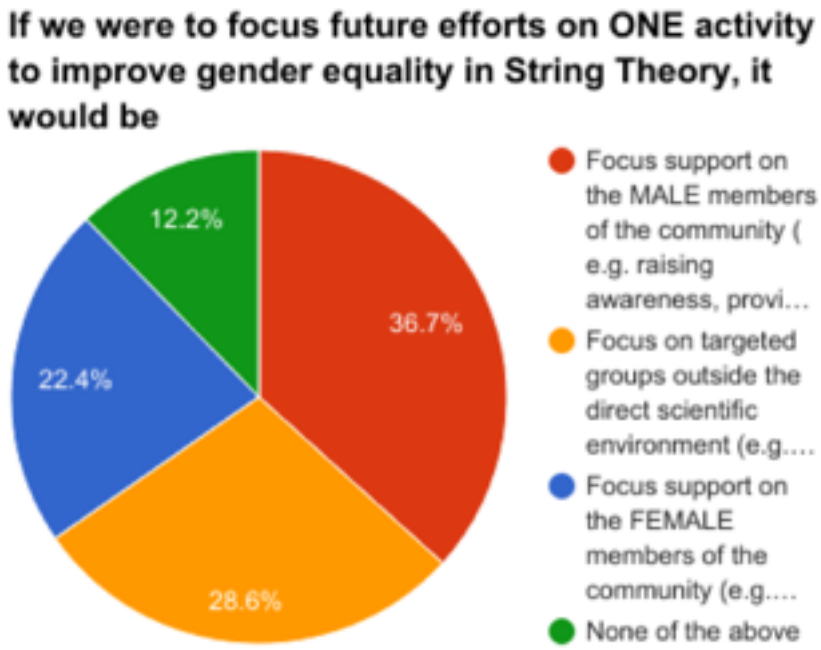
Female respondents

Male: 44.7% agree
19.7% disagree

Female: 33.9% agree
40.7 % disagree



Male respondents



Female respondents

Many women believe that the men in the community could make significant changes. Men however put the emphasis on society change.

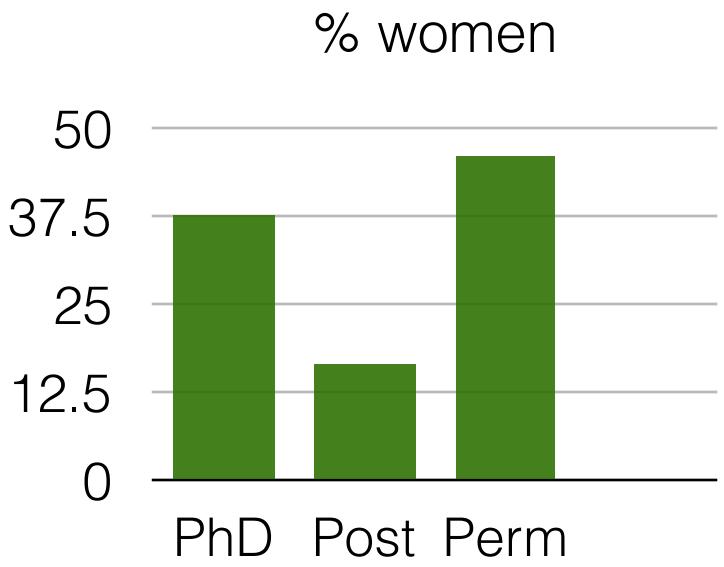
Number of respondents: 172

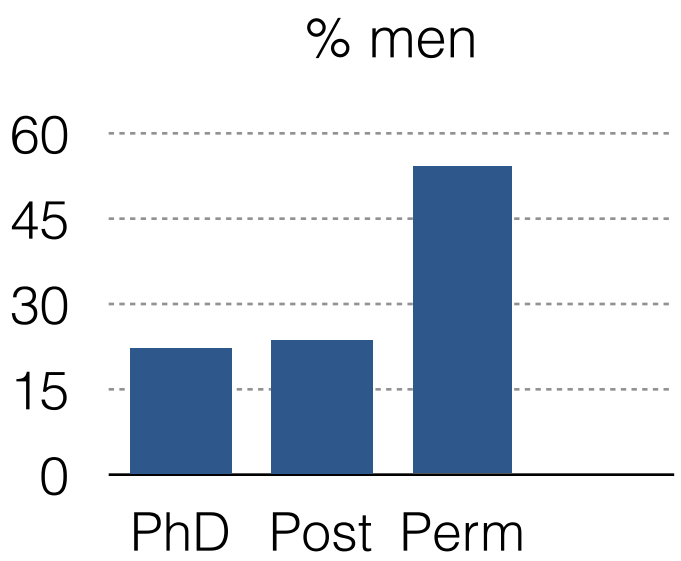
Male: 112

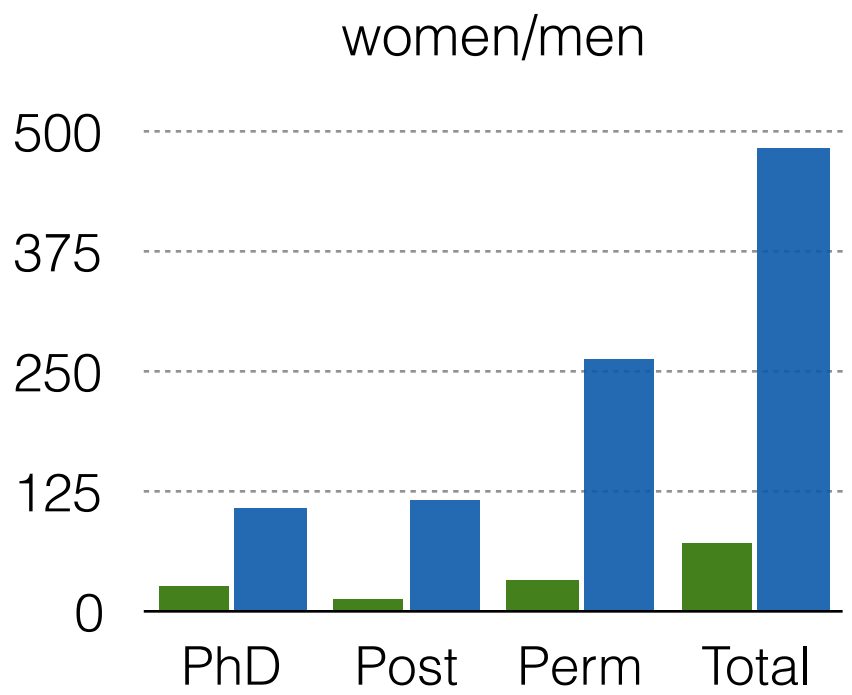
Female: 50

15 PhD students, 44 postdocs, 113 permanent

Statistics:





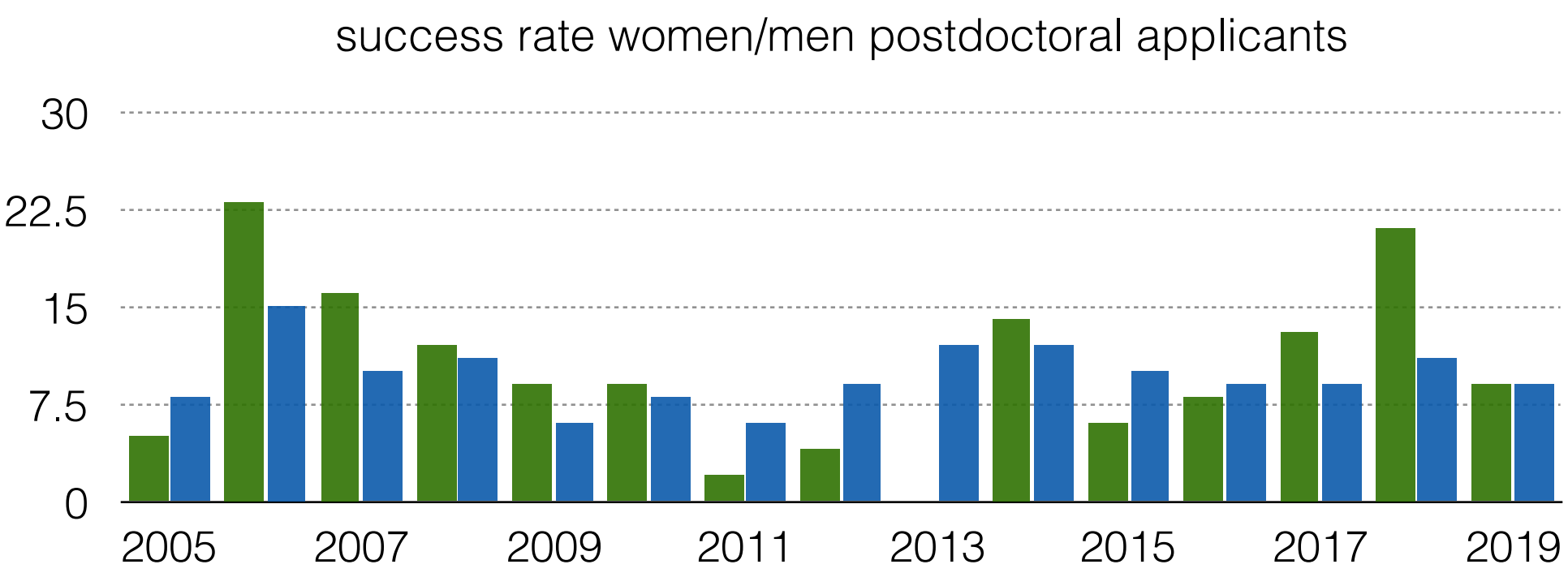


Data taken from composition of the Action in 2015

Women = 72		Men = 482	
PhD = 27	37.5%	PhD = 107	22.2%
Postdocs = 12	16.7%	Postdocs = 114	23.7%
Permanent = 33	45.8%	Permanent = 261	54.1%

Total = 554 (Women = 13%)

PhD = 134	24.2%	(Women = 20.1%)
Postdocs = 126	22.7%	(Women = 9.5%)
Permanent = 294	53.1%	(Women = 11.2%)



Data collected from the European Joint Postdoctoral Recruitment coordinated by A. Van Proeyen

Year	# Candidates	# Women candidates	Taken in our institutes			
			# Total taken % Total taken/ Candidates	# Women % W taken /W candidates	#Men % M taken / M candidates	% Women taken/ Total taken
2005	239	22 (9%)	18 (8%)	1 (5%)	17 (8%)	(6%)
2006	207	26 (13%)	33 (16%)	6 (23%)	27 (15%)	(18%)
2007	186	19 (10%)	20 (11%)	3 (16%)	17 (10%)	(15%)
2008	226	26 (12%)	25 (11%)	3 (12%)	22 (11%)	(12%)
2009	354	41 (12%)	24 (7%)	4 (9%)	20 (6%)	(16%)
2010	400	35 (9%)	34 (9%)	3 (9%)	31 (8%)	(9%)
2011	411	41 (10%)	25 (6%)	1 (2%)	24 (6%)	(4%)
2012	416	55 (13%)	35 (8%)	2 (4%)	33 (9%)	(6%)
2013	365	35 (10%)	40 (11%)	0 (0%)	40 (12%)	(0%)
2014	438	50 (11%)	54 (12%)	7 (14%)	47 (12%)	(13%)
2015	412	47 (11%)	39 (9%)	3 (6%)	36 (10%)	(8%)
2016	476	37 (8%)	44 (9%)	3 (8%)	41 (9%)	(7%)
2017	416	55 (13%)	40 (10%)	7 (13%)	33 (9%)	(18%)

Legacy of the COST Action

- A synergic network of women string theorists has been built

- There is more awareness in the field and the discussion has been opened

- The importance of gender issues, not only sociologically but also in our scientific environment, has been transmitted

- Contacts with gender experts have been established

The Action has produced a very useful report, that summarizes its gender activities and the conclusions reached:

The COST Action "The String Theory Universe": A proactive approach to gender issues in Theoretical Physics

http://www.weizmann.ac.il/stringuniverse/

GenHET

A new working group has been created, involving all High Energy Theorists, supported technically and financially (partially) by CERN

This working group will deal with our previous objectives, in a wider (HET) community

This will allow us to compare the situation in different sub-fields

The kick-off meeting took place at CERN:

1st Workshop on High Energy Theory and Gender
26-28 September 2018
CERN

The success of this initiative will strongly depend on the active involvement of the community, men and women

We opened the subscription two months ago, and we have already received more than 160 requests of people interested in being actively involved (around 50% men and 50% women; 32% string theorists)

Strong support from the community!

The next workshop is planned at CERN for next Autumn.
Stay tuned!

https://genhet.web.cern.ch

What can we do?

- Open the WG to all interested people (men&women)
- Collect more data
- Monitor and analyse gender data in our community and compare with other STEM communities.
- Encourage/mentor young women.
- Monitor the representation of women in selecting committees at all levels.
- Monitor the representation of women at conferences and schools (scientific boards, invited speakers...).
- Monitor the representation of women in journal editorial boards.
- Promote and coordinate the “Strings and Gender” Workshops
- Develop a web resource to collect data and exchange good practises between different countries.
- Promote active participation in EU initiatives on gender.
- Promote gender and diversity training in all institutions and for all fellowship panels.

Thanks!