



The COST experience

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@String Pheno 2021

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

A snapshot of statistics: COST Action composition 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%

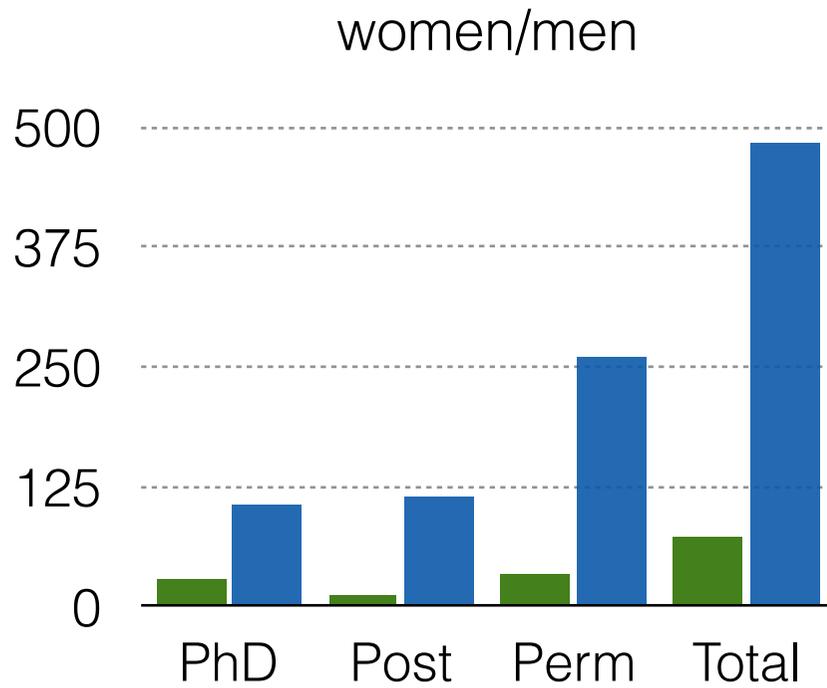
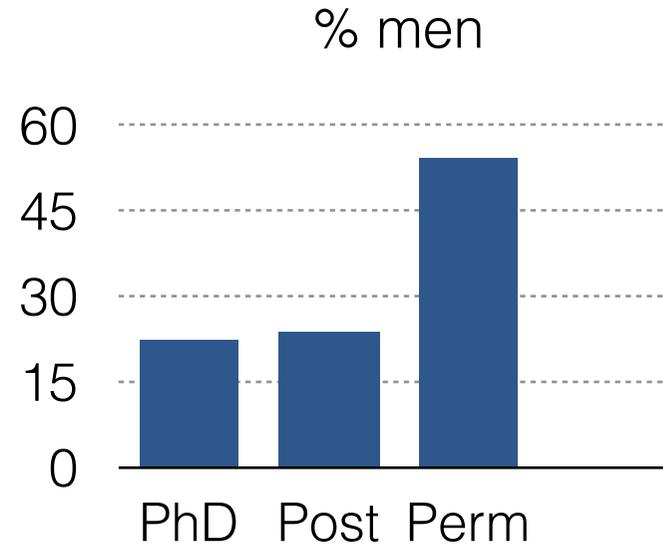
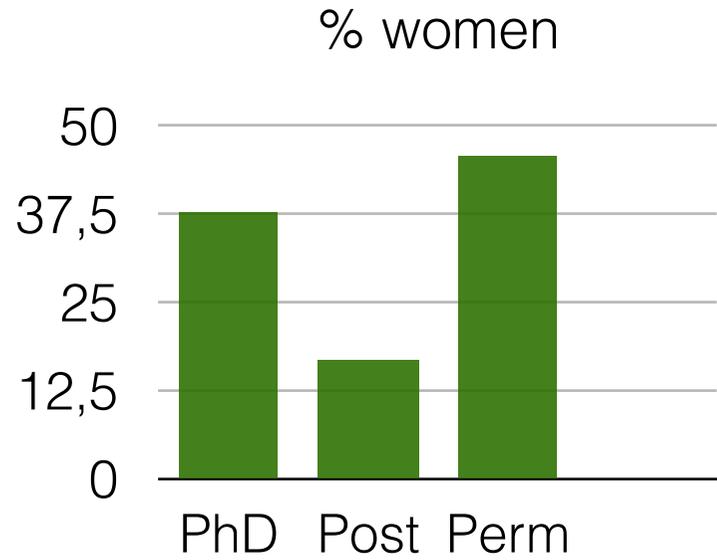
Permanent = 261 54.1%

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 taken from composition of the COST Action in 2015

Under the COST Action we:

- Promoted the active participation of women (leading positions, speakers, members of scientific and organizing committees)
- Made the community aware of many important studies about women in STEM, unconscious gender bias, gender stereotypes,..
 - Gender events as part of each major scientific conference/workshop
 - “Workshops on String Theory and Gender”
- Conducted several surveys to know the opinions of the community

Surveys provided very interesting input

Final gender survey

Number of respondents: 172

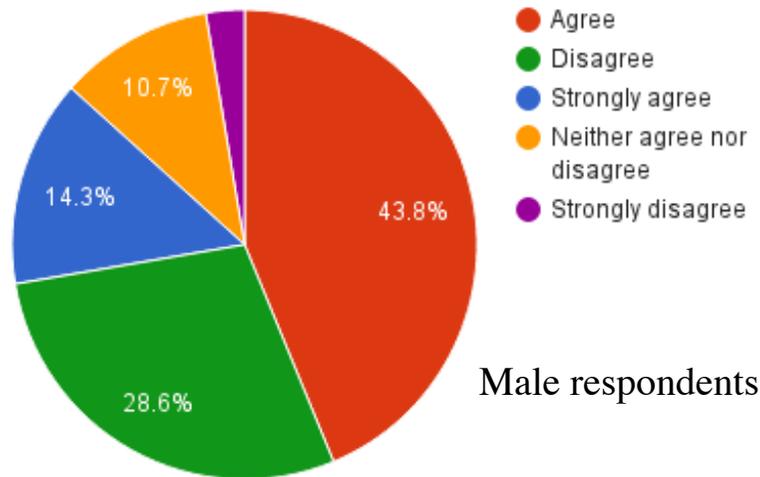
Male: 112

Female: 50

15 PhD students, 44 postdocs, 113 permanent

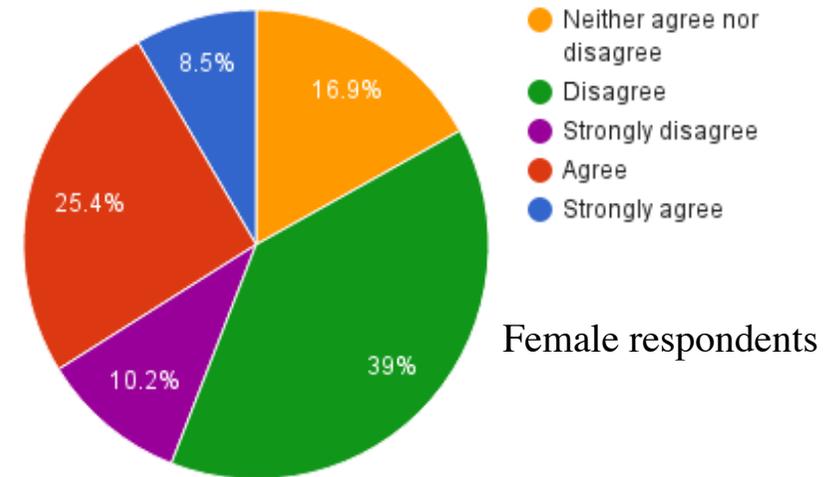
Surveys provided very interesting input:

Women and men in my field have equal opportunities for career advancement



Male respondents

Women and men in my field have equal opportunities for career advancement



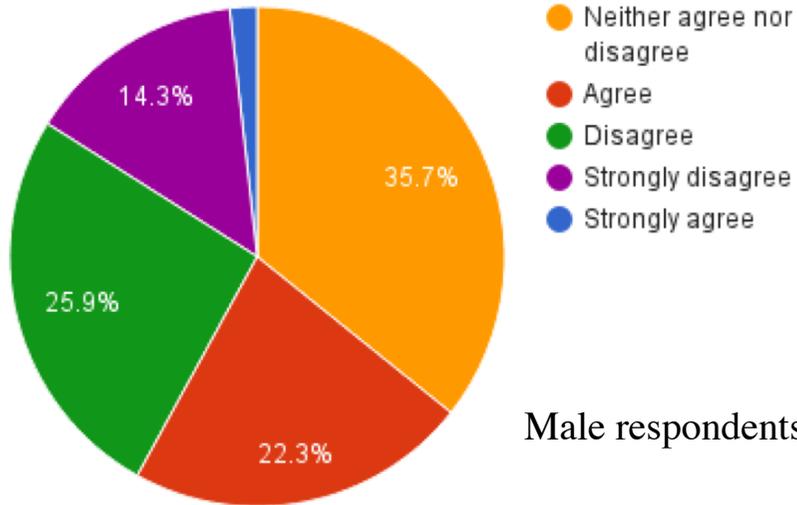
Female respondents

Male: 58.1% agree
31.3% disagree

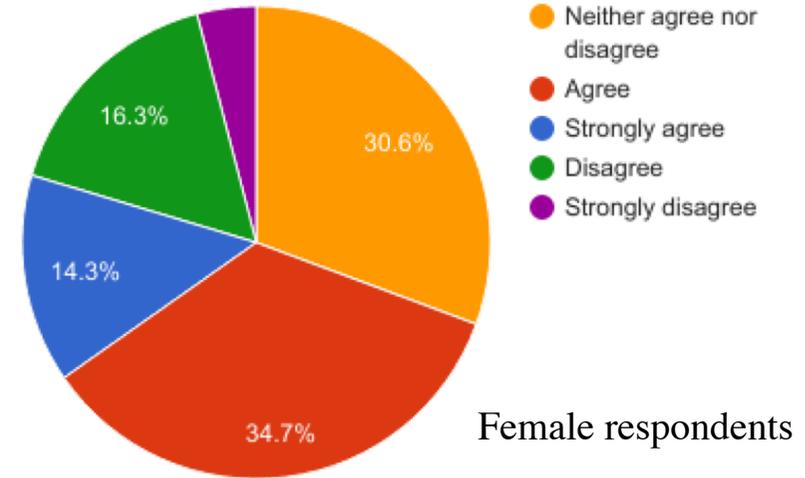
Female: 33.9% agree
49.2% disagree

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

The String Theory scientific environment is particularly difficult for women compared to those of other science and engineering discipli...



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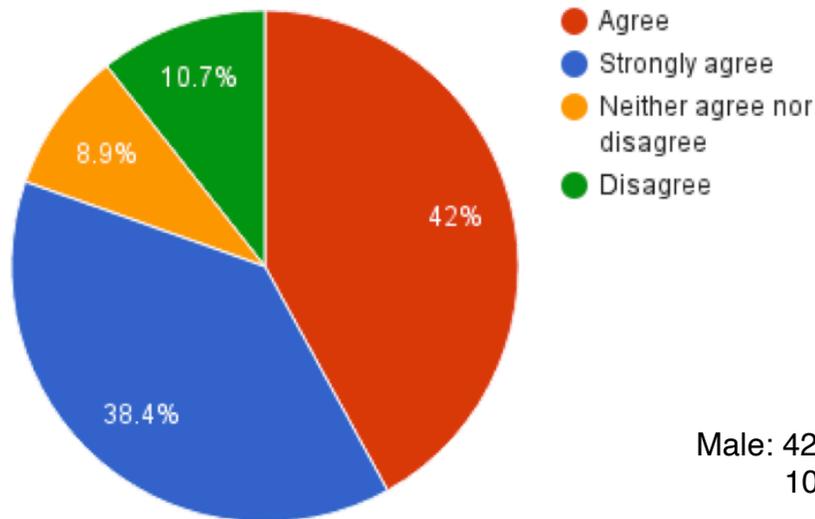
Male: 24.1% agree
40.2% disagree

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

In my department, staff are treated equally regardless of gender

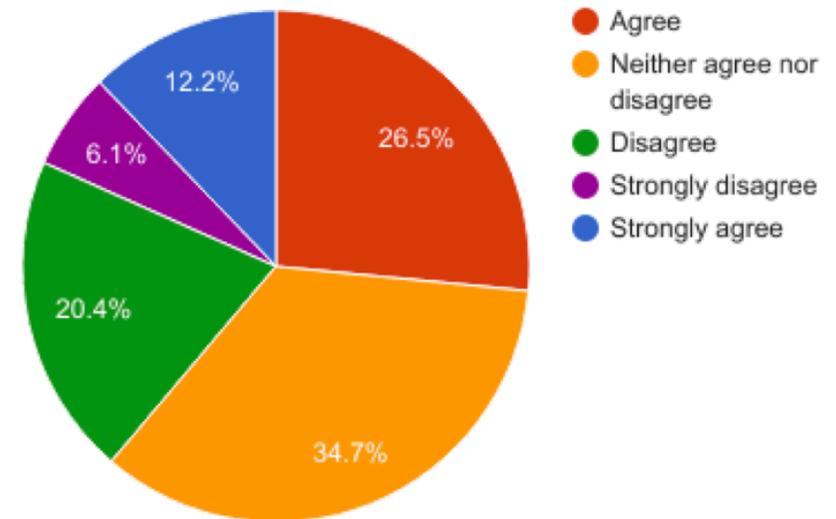


Male: 42.6 % agree
10.7 % disagree

Female: 38.7 % agree
26.5 % disagree

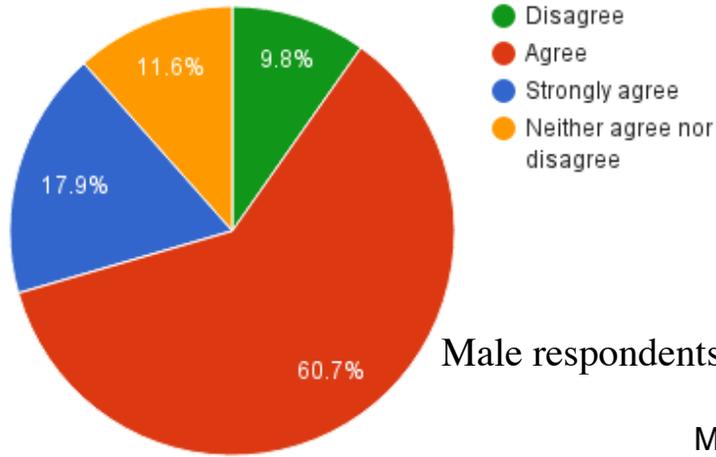
Female respondents

In my department, staff are treated equally regardless of gender



Many respondents argued that although there are no differences in duties, salary, access to funds, freedom to express opinions, differences exist at a more subtle level. Senior professors approach young men and women differently. Women's opinions are not actively encouraged as men's ones are. Attention toward young women is often justified by "gender issue" (very offensive)

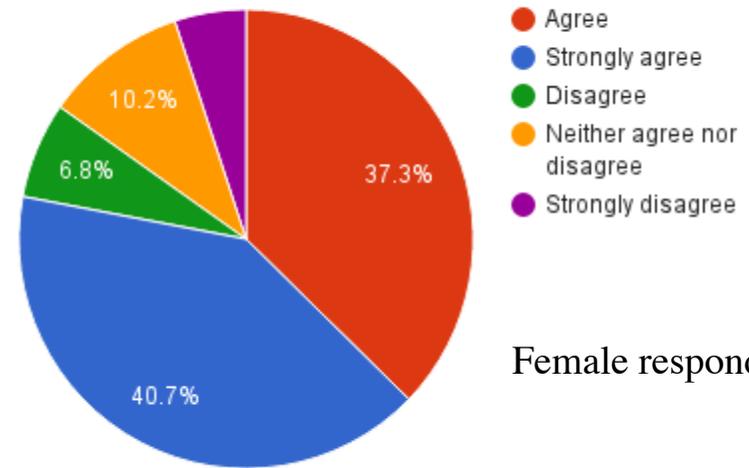
Women in my field with young families or caring responsibilities are disadvantaged in their career



Male respondents

Male: 78.6% agree
9.8% disagree

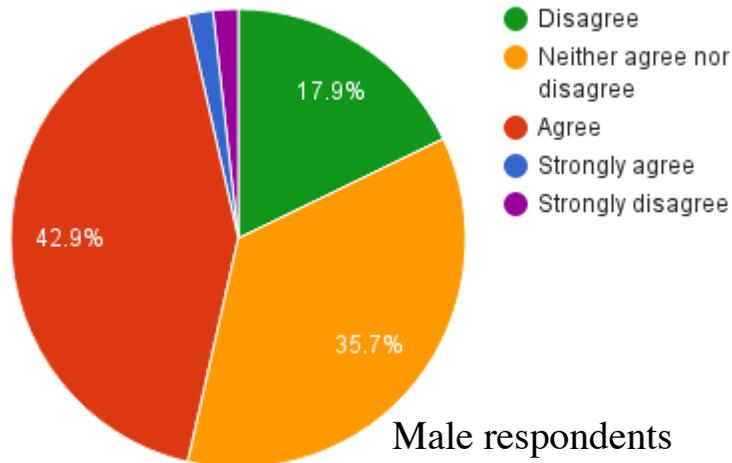
Women in my field with young families or caring responsibilities are disadvantaged in their career



Female respondents

Female: 78% agree
11.8% disagree

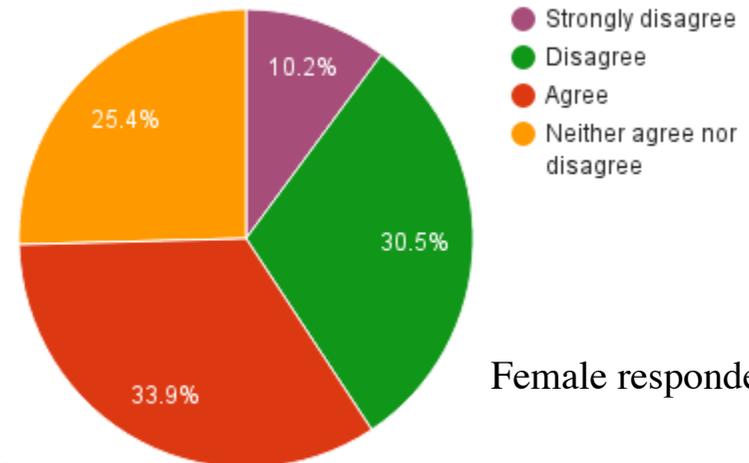
Men in my field with young families or caring responsibilities are disadvantaged in their career



Male respondents

Male: 44.7% agree
19.7% disagree

Men in my field with young families or caring responsibilities are disadvantaged in their career



Female respondents

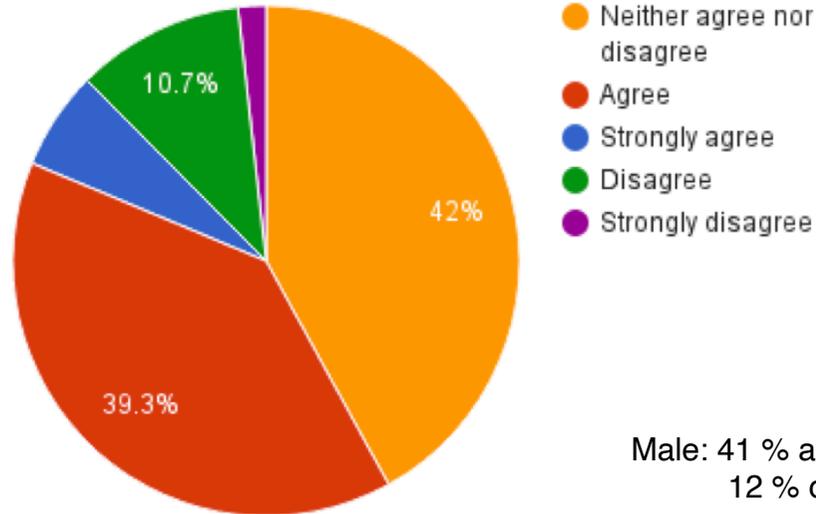
Female: 33.9% agree
40.7% disagree

Some comments:

- One of the many bad consequences of publish or perish
- An important moment where this disadvantage plays a role and is amplified is in scientific funding....An overall increase in scientific funding can ameliorate the disadvantage.
- Some people argued that this is true for both men and women, but for women it may be worse. It is true in many other disciplines.
- Having a family is a disadvantage to any individual in today's society (from the naive perspective of career, status and money), yet humanity needs children.

Male respondents

Women in our field are more inclined to accepting care responsibilities while men delegate more often, and this decision affects t...

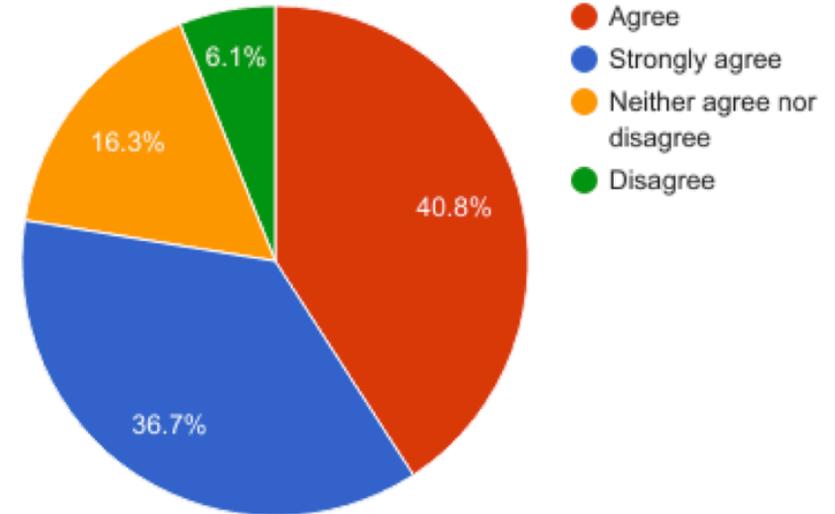


Male: 41 % agree
12 % disagree

Female: 77.5 % agree
6.1 % disagree

Female respondents

Women in our field are more inclined to accepting care responsibilities while men delegate more often, and this decision affects...



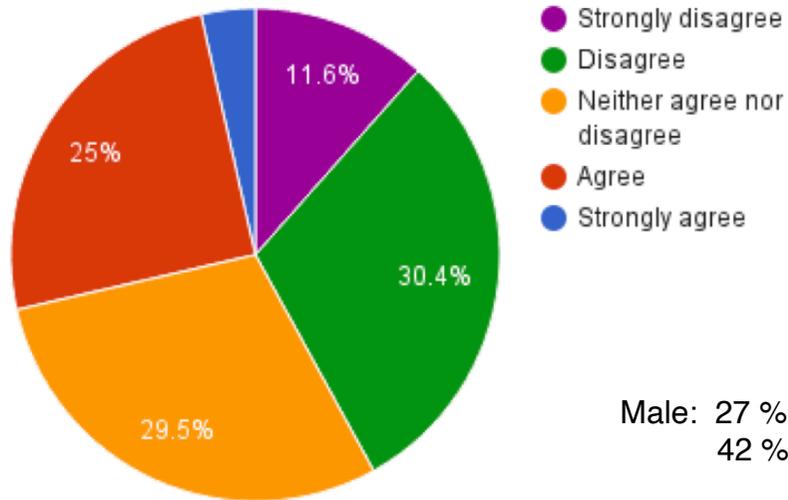
Most of the respondents providing comments were men.

It is an individual choice, it depends on the individuals and on the couple. It is true in any field. Things function better if both parents work in the field. Women in our field tend to find partners to whom they can delegate care responsibilities.

This question is based on a subconscious bias and cannot be answered in a meaningful way.

Male respondents

My institution and/or country gives adequate support for child care

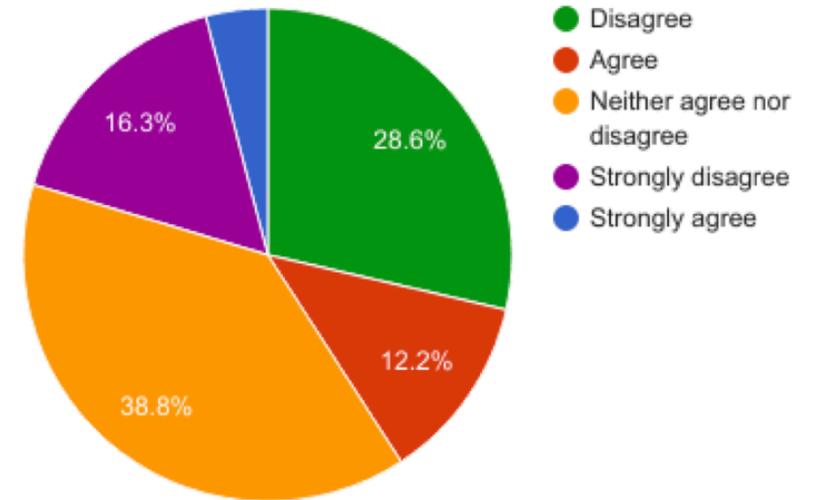


Male: 27 % agree
42 % disagree

Female: 13 % agree
44.9 % disagree

Female respondents

My institution and/or country gives adequate support for child care

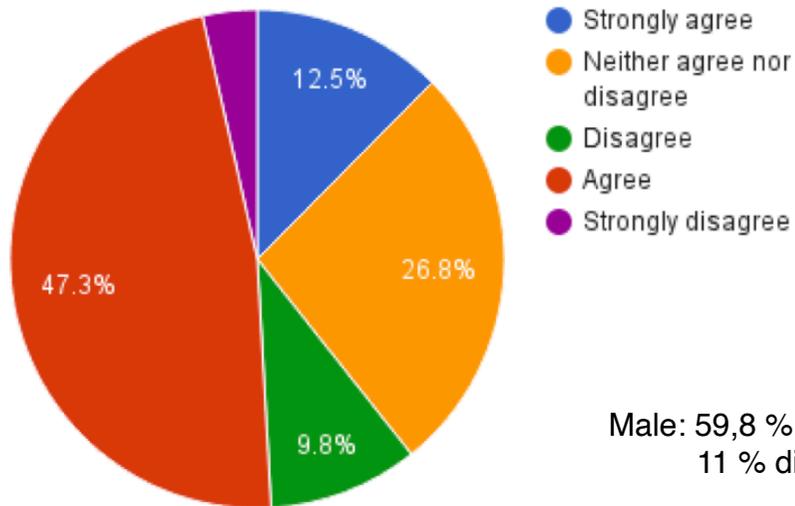


Some universities have campus nursery and vacation care, as well as daycare. Some respondents complain about the cost of these facilities or the total absence of facilities.

Some men respondents complain about the unbalanced parental leave after the birth.

Male respondents

I think having women and men holding equal untransferable maternity/paternity leaves would improve the situation of women in our field

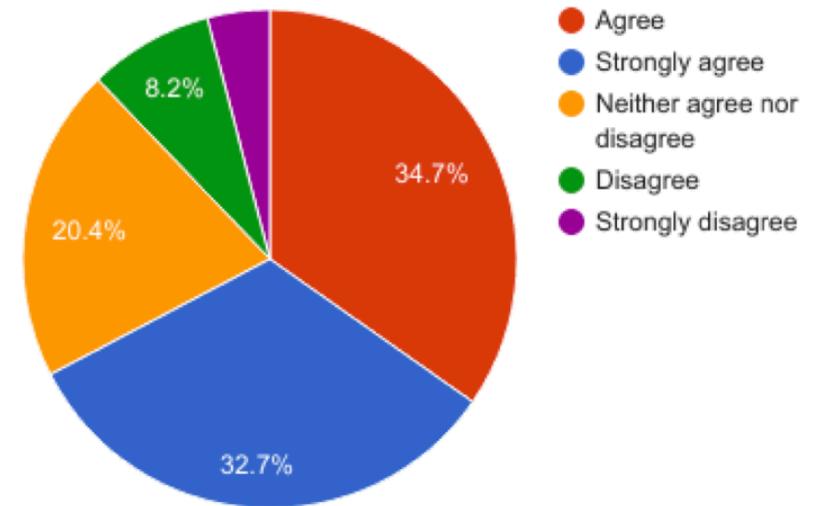


Male: 59,8 % agree
11 % disagree

Female: 67,4 % agree
10 % disagree

Female respondents

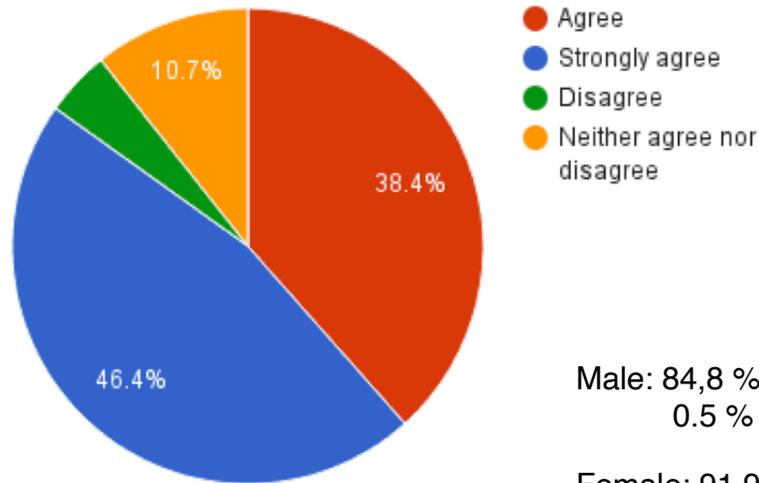
I think having women and men holding equal untransferable maternity/paternity leaves would improve the situation of women in our field



Most of the respondents (M&F) were skeptical about the effectiveness of longer parental leave. Moreover, the concept of having “untransferable” parental leaves was hardly criticised (primarily by men). The couple should be free to decide how to split cares.

Male respondents

The high mobility needed in our field during the pre- and post-doctoral periods interferes strongly with the creation of a family. I think m...

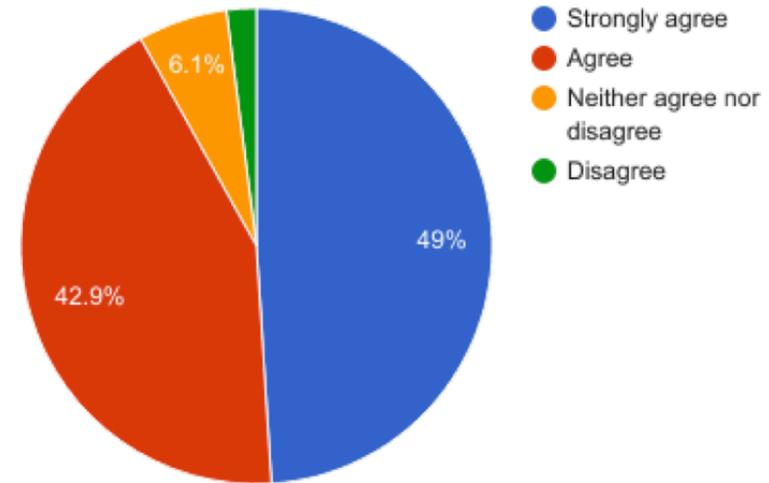


Male: 84.8 % agree
0.5 % disagree

Female: 91.9 % agree
2 % disagree

Female respondents

The high mobility needed in our field during the pre- and post-doctoral periods interferes strongly with the creation of a family. I think m...



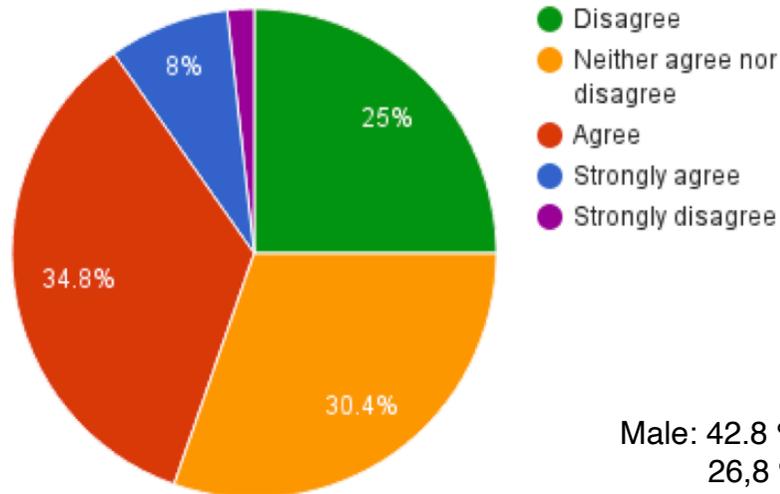
Most respondents think that this is an important issue, but we should not give up mobility and postdoc training.

Possible solutions to mitigate the effects:

- Create “dual postdoc positions” for couples
- Longer contracts sheared to mitigate job insecurity
- Home-coming periods in MSCA grants
- Create a virtual environment to find remote collaborations

Male respondents

I am familiar with my institution's sexual harassment policies and would be confident of what to do if approached by a junior colleague...

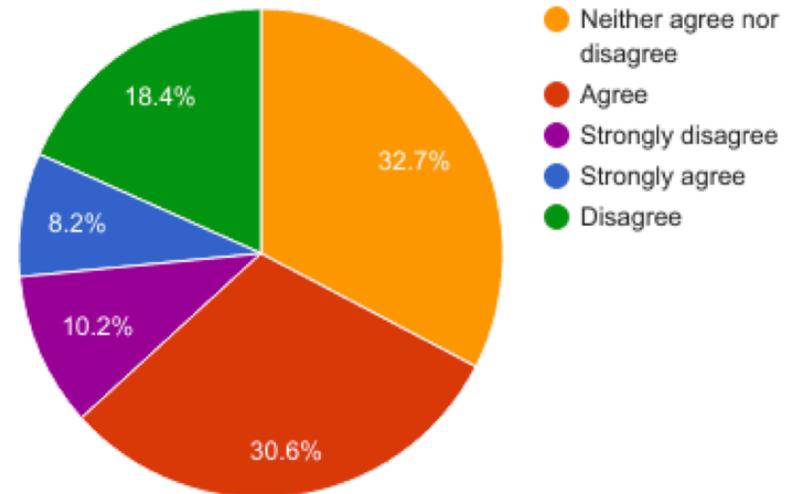


Male: 42.8 % agree
26,8 % disagree

Female: 38.8 % agree
28,6 % disagree

Female respondents

I am familiar with my institution's sexual harassment policies and would be confident of what to do if approached by a junior colleague...



Most of respondents declare to have not received any training on it, but they would know how to face the problem, in case.

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 issue, not only sociologically but also in our scientific environment, has been transmitted
- Contacts with experts on this subject are being fostered (sociologists, economists, policy makers)

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/>

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GENHET

(Gender in High Energy Theory)

About

GenHET is a permanent working group hosted by the CERN Theory Department, whose main objectives are to monitor the situation of women in High Energy Theoretical Physics, increase the awareness of gender issues in the field, improve the visibility and presence of women in decision making roles and providing networking, support and mentoring, particularly to early career researchers.

The group is open to all researchers in High Energy Theory, irrespective of their gender, across all career stages and nationalities. Interested researchers are welcome to subscribe and propose new ideas and initiatives.

Latest News

LATEST NEWS



<https://genhet.web.cern.ch>

Main goals

- Open the WG to all interested people (men&women)
- Monitor and analyse gender data in our community and compare with other STEM communities.
- Encourage young women to apply for postdoctoral positions. Mentoring activities.
- 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.