



Women under High Pressure



Outline



- Motivation
- Some figures
- Why??
- Numbers in HP
- Lets go active: WHP
- From WHP to survey
- Women speak out loud
- Word on the floor



Men interested in science → erudites

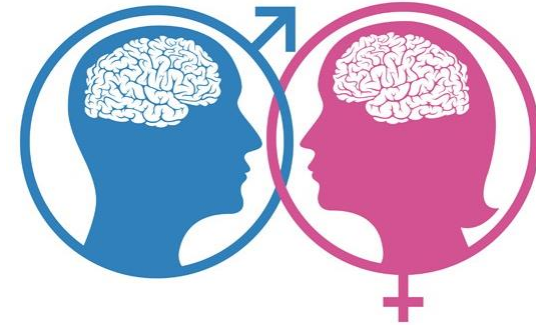
Women → witches and were punished for it

In the old times



1880

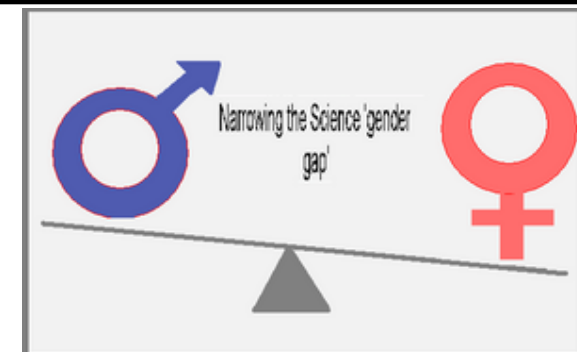
Researchers first began investigating gender differences → **women's smaller brains** were sadly deficient



Now

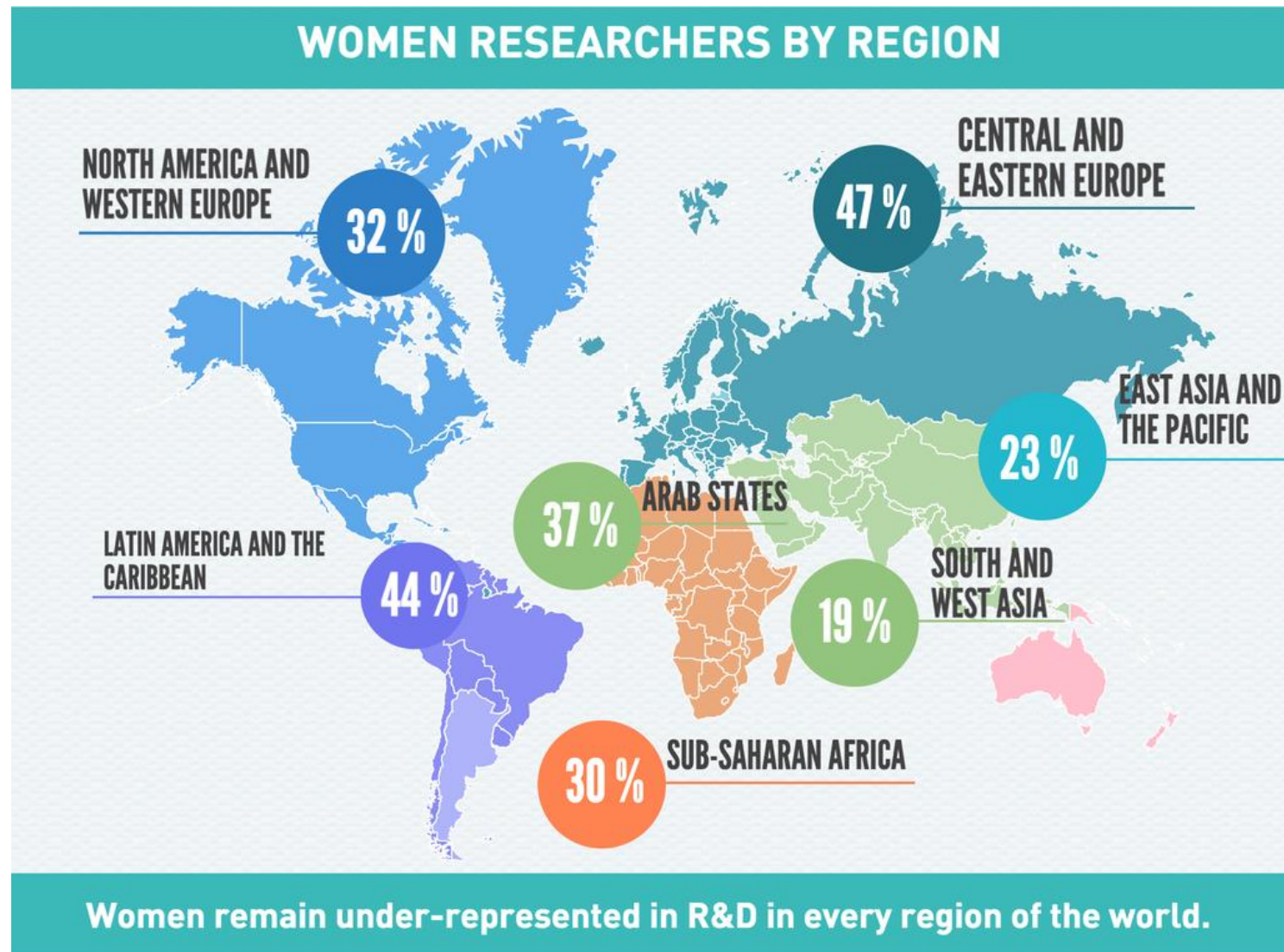
Women are accepted and welcome in science,
BUT there is a visible gap between the number of
women receiving PhDs and those hired as junior
faculty

4% of Nobel prizes are women





Just 28% of the world's researchers are women
Still a long way to go



Women in science



Some experimental evidence suggests that even though evaluators report liking women more than men, they judge women as less competent than men even when they have identical backgrounds!

This was so independently of the gender of the examiner!!

Moss – Racusin, PNAS. (2012)1211286107



Women in science



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Raise awareness!!



Women in science

These Are (at least) 7 Things Keeping Women Out Of Science Careers

1. Teasing in school

Even at the high school level, teachers and classmates sometimes stereotype girls who are interested in advanced physics and math.

2. A Lack of Encouragement

Studies have shown when told that men score better in math tests than women, women tend to score worse. When told that isn't true, the two genders scored equally well.

3. Stereotypes

Females playing STEM-literate characters are gaining more popularity in the movies, but still underrepresented



Women in science

These Are (at least) 7 Things Keeping Women Out Of Science Careers

4. Childcare

Even if young women make it through a bachelor's and enter academia, they often leave the STEM fields early in their career.

A study by Berkeley researchers found that 41% of women postdocs who had babies retreated from their original goal of being a research professor, versus 20% of single women.

5. Competition

Women are generally less competitive and aggressive than men...in occidental countries

Women were found to be even more competitive than men in matriarchal societies, so it is up to education!



Women in science

These Are (at least) 7 Things Keeping Women Out Of Science Careers

6. Marginalization

Even if women do find themselves a faculty position, they are frequently paid less than their male counterparts, given less lab and office space, get fewer awards for their work, and given access to fewer resources.

7. Bias

When presented with identical lab manager resumes from either a John or a Jennifer both male and female professors tended to pick the John as the better candidate, and offer him more money for the position.



Women in science

Hope ahead

It's not all bad news; more women are making it to college and graduate levels of STEM.

If you look at the students scoring in the top one in 10,000 in mathematics in 1983, there were 13 boys for every girl

Since then, until 2007, that gap has shrunk to somewhere between 2.8 and four boys for every girl.



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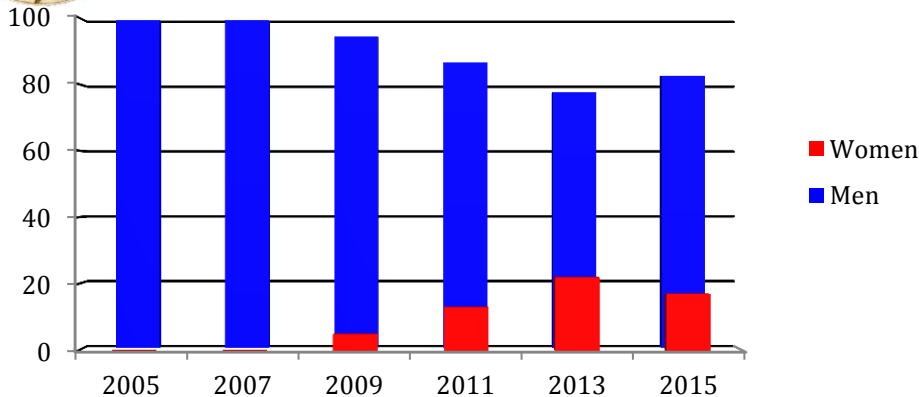
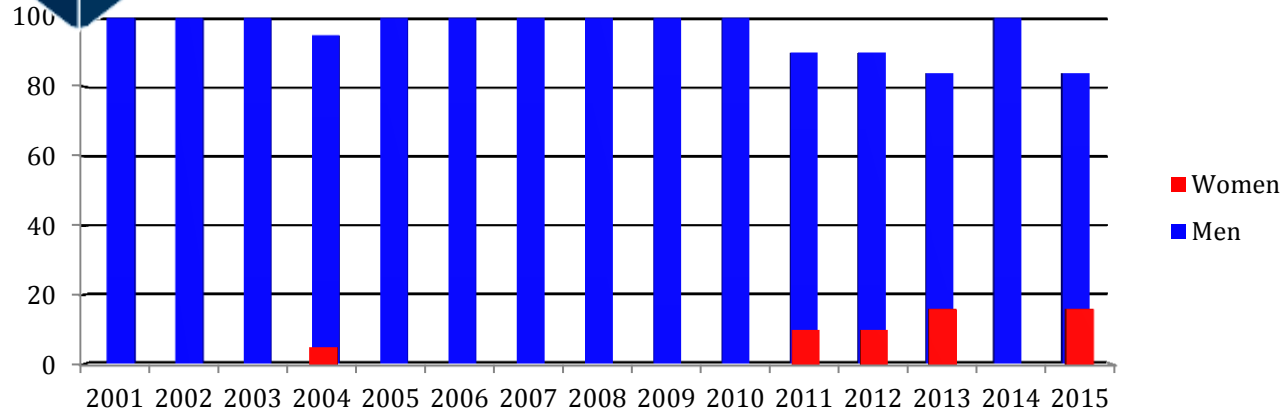
Coscience exam:
How are we doing??



High pressure field



Committees



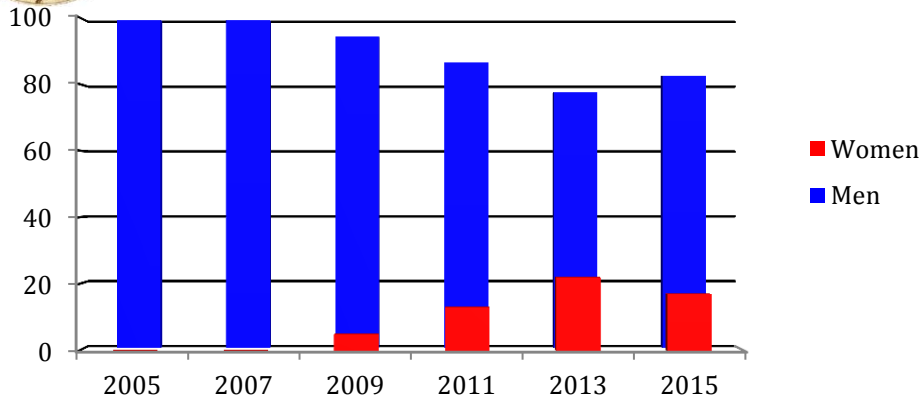
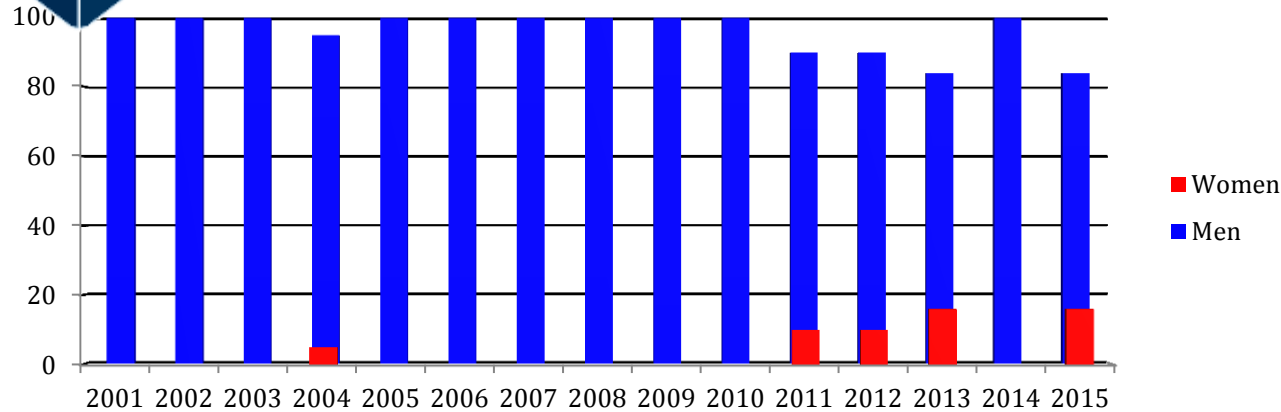
**Along the years:
5 % of feminine participation in
committees
18 % of EHPRG award winners are
women**



High pressure field



Committees



**Along the years:
5 % of feminine participation in
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18 % of EHPRG award winners are
women**

Numbers are getting better though!!!



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And the Power Hour!



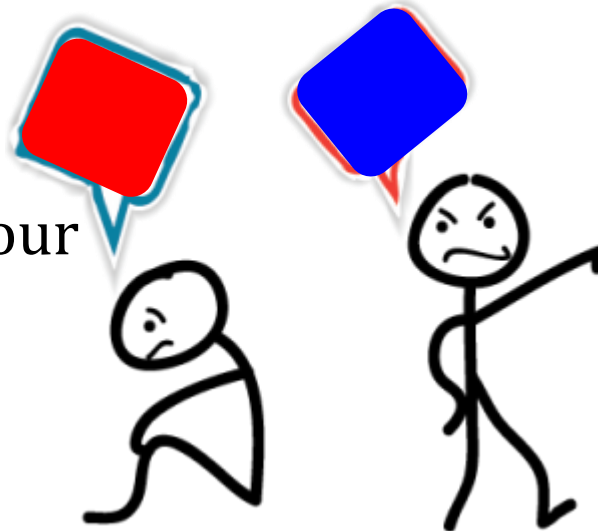
Women under high pressure



There is a large women community in the high pressure field,
why do not try to create a balance community?

Our goal: Set equal opportunities for next women in the field

Passive behaviour





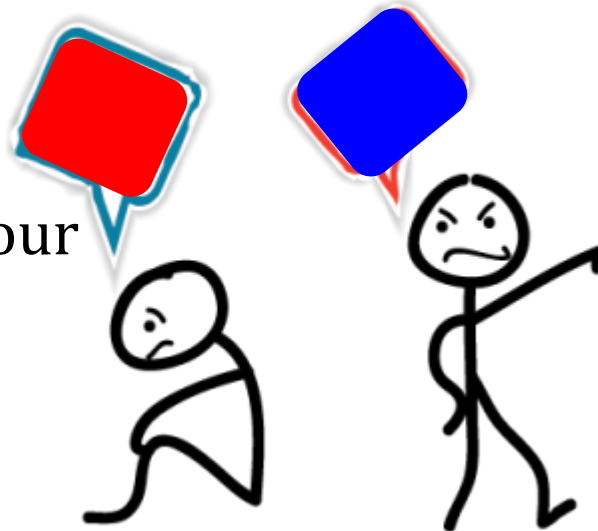
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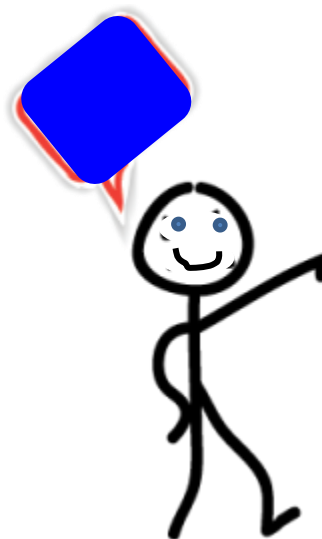




Women under high pressure



55 members in less than a year



Women under High Pressure

Diamonds are our best friends

[HP Meetings](#)

[EHPRG](#)

[AIRAPT](#)

[News](#)

Who are we?

We are not many. But we are growing in number! And this [directory](#) is a testimony. A testimony of **female scientists working in (and under!) pressure** and all related fields: physics, chemistry, biology, geology, food science, technology...

Please help to keep this [directory](#) complete and up to-date.

We are grateful to all the suggestions we received from the community. More names will be added soon - stay tuned!

What for?

Are you a conference organizer? Part of a committee?

You are aware that there should be a fair gender representation in your High Pressure organization/event but cannot think of women in the field? We are indeed a minority, but there are much more of us than you think. We hope that this list will help you find someone who fits the scope of your organization.

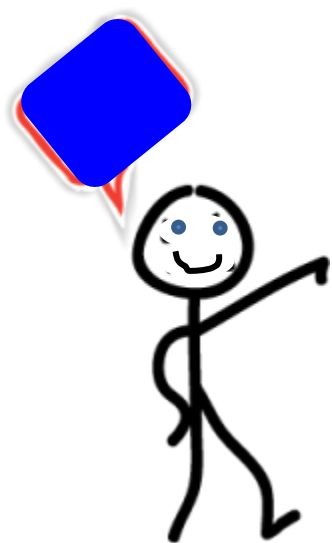
Invite women to your meeting. Elect them for committees. Not only will you hear about some great science, but you will also be fighting against discriminations and providing a great example of women in science and references to many women graduate students and postdocs in attendance.

How to be included

Just send an email to whp@lct.jussieu.fr with the information needed for the entry (see some examples [here](#)) and (optionally) a picture!



Women under high pressure



Women under High Pressure

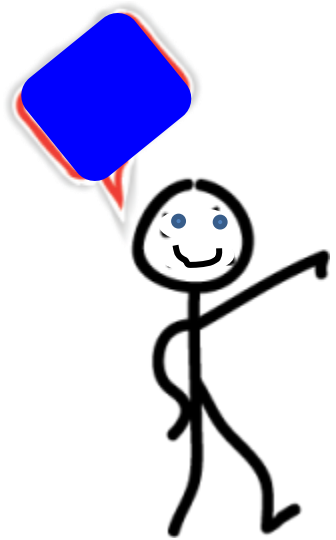
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Women under high pressure



Women under High Pressure

What for?

A direct reminder to conference organizers and committees

We hope that this list will help find someone who fits the scope of a high pressure event/organization.



Women under high pressure



Women under High Pressure

How to be included

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Women under high pressure

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By Position occupied:

- [Permanent/Staff](#)
- [Postdocs](#)
- [PhD students](#)

Alphabetical Directory

B



Naria Maria Balzaretti (Institute of Physics, Federal University of Rio Grande do Sul, Brazil)

Position: Professor

Methods: Raman and IR- spectroscopy, DAC

Aims/Systems: carbon materials, diamond, CVD diamond, glasses

Website: <http://www.if.ufrgs.br/lapma/>

Email: naira@if.ufrgs.br



Christine Beavers (ALS, Lawrence Berkeley National Laboratory, US)

Position: Scientist

Methods:

Aims/Systems:

Website:



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Aims/Systems: carbon materials, diamond, CVD diamond, glasses

Website: <http://www.if.ufrgs.br/lapma/>

Because it is really important to
create awareness from the
beginning



Women under
High Pressure

Position: Scientist

Methods:

Aims/Systems:

Website:

onal Laboratory, US)



Women under high pressure

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By Position occupied:

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Alphabetical Directory

B



Naria

Positio

Metho

Aims/S

Website: <http://www.if.ufres.br/lapma/>

Email:



Women under
High Pressure

Christi

Positio

Metho

Aims/Systems:

Website:

Statistics:
permanent 40
postdoc 7
phd 7

Diffuse the message! Encourage your students!



Survey Women under high pressure





Survey Women under high pressure



Songades LCT

Security Update ! a security update is available. [Click here](#) to use ComfortUpdate.

Administration -- Logged in as: **Julia**



Surveys:

Survey Women in Science(ID:947176)



Question groups:

Title: **Women in Science (ID 947176)**

Survey URL - English: <http://sondage.lct.jussieu.fr/index.php/947176?lang=en>

Description:

Welcome:

End message:

Administrator: Julia Contreras (contrera@lct.jussieu.fr)

Start date/time: -

Expiry date/time: 30.06.2016 00:00

Template: default

Base language: English

Additional languages: -

End URL: -

Number of questions/groups: 12/3

Survey currently active: Yes

Survey table name: survey_947176



Survey Women under high pressure



1. Do you feel you have ever been treated professionally different because of your gender?(yes/no)
2. If yes, in which sense?
3. What are the biggest challenges women face in science?
4. What is the biggest bottleneck for careers of women in science?
5. Women arriving to latter stages in the research career are in a noticeably smaller ratio with respect to those who start it than their male peers, what do you think are the main reasons
6. How would you encourage female undergraduates in the audience to continue their path in becoming a scientist?



Survey Women under high pressure



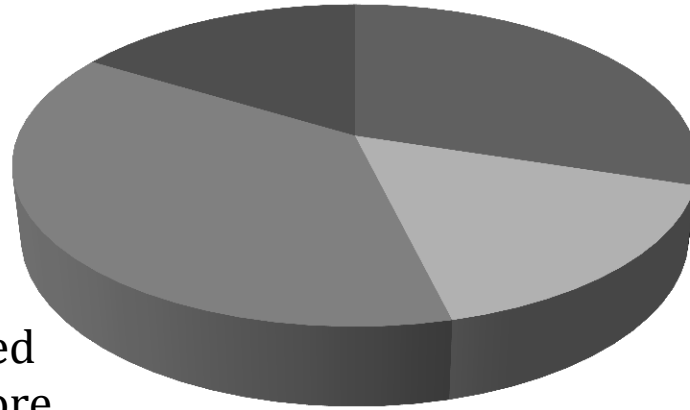
7. How many female PhD students do you know?
8. How many senior female are in your workplace?
9. Is there a balance between the number of female PhD students and the senior females in your working area? If yes, why?
10. How important you find/ever found presence of other more senior female scientists in your workplace?



Survey Women under high pressure



47% feel treated professionally different because of their gender



Men's accepted
behavior is more
aggressive than
women's
38%



Survey Women under high pressure



47% feel treated professionally different because of their gender



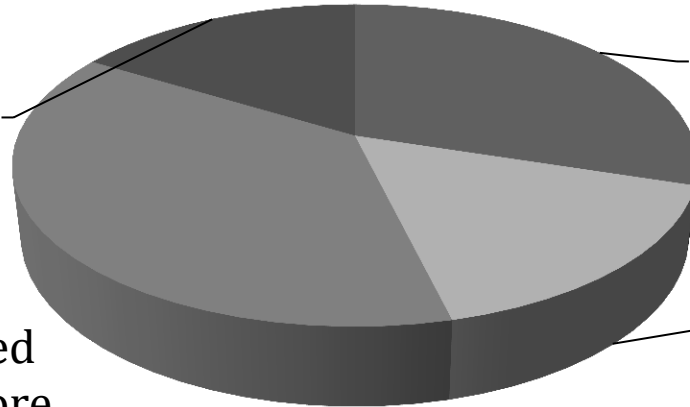
tried to reach
certain positions
and men less
qualified than me
stepped over me

16%



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Ideas of men at
the same rank
are taken more
seriously than
women's.

30%



Time constraints
different than
men's and I do
not receive
facilities

16%





Survey Women under high pressure



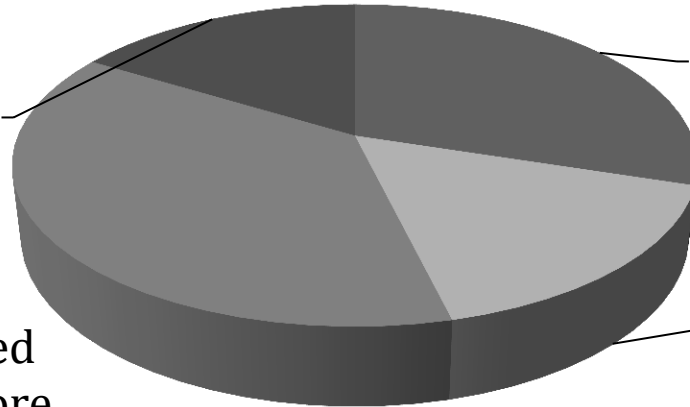
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16%



- *sexist remarks*
- *I have been told I have advantages over men due to affirmative action*
- *Do not receive the same opportunities*
- *my achievement is qualified as "luck" instead of "work"*



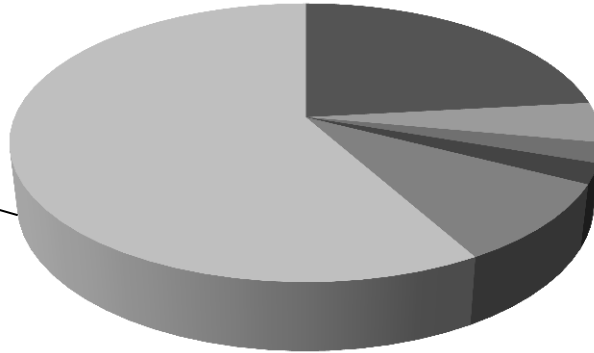
Survey Women under high pressure



What is the biggest bottleneck for careers of women in science?



Continuing with a
personal life and
starting a family
58%





Survey Women under high pressure



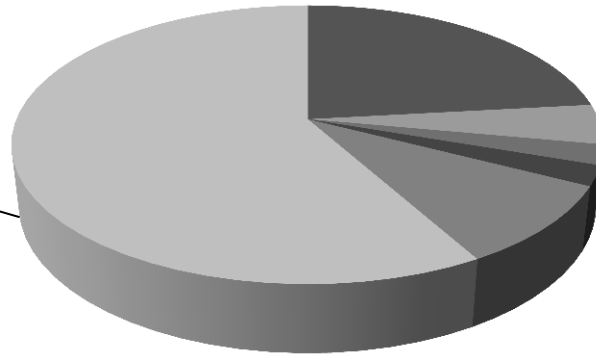
What is the biggest bottleneck for careers of women in science?



Intellectual
harassments
23%



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Survey Women under high pressure



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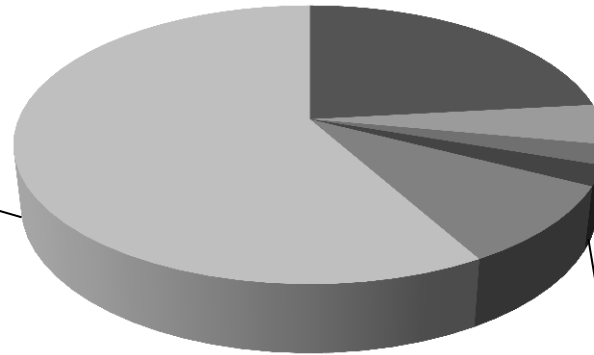
Intellectual harassments
23%



continuing without having to enter old men club
5%



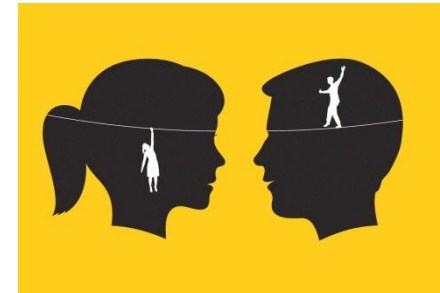
Senior colleagues expect women to be less competent than they are
Women expect an impossible life
3%



Lack of career progression
2%



Sexual harassments
9%

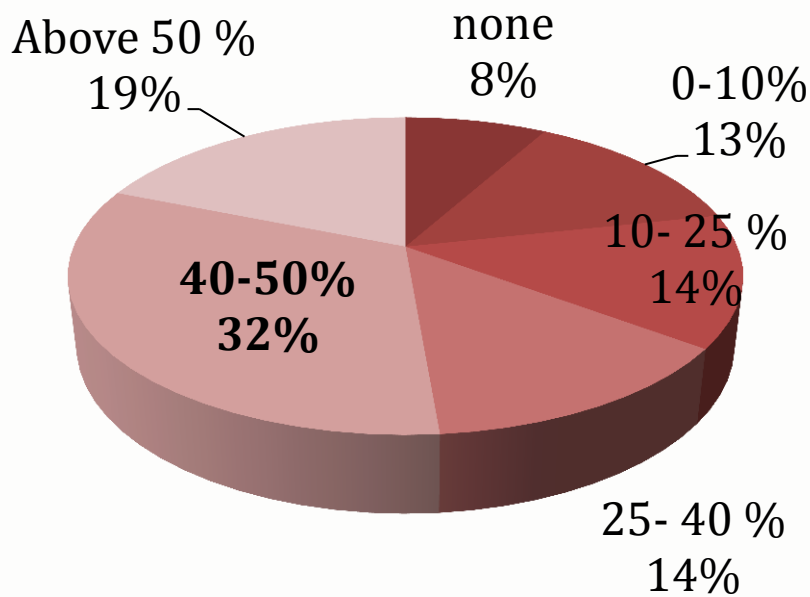




Survey Women under high pressure

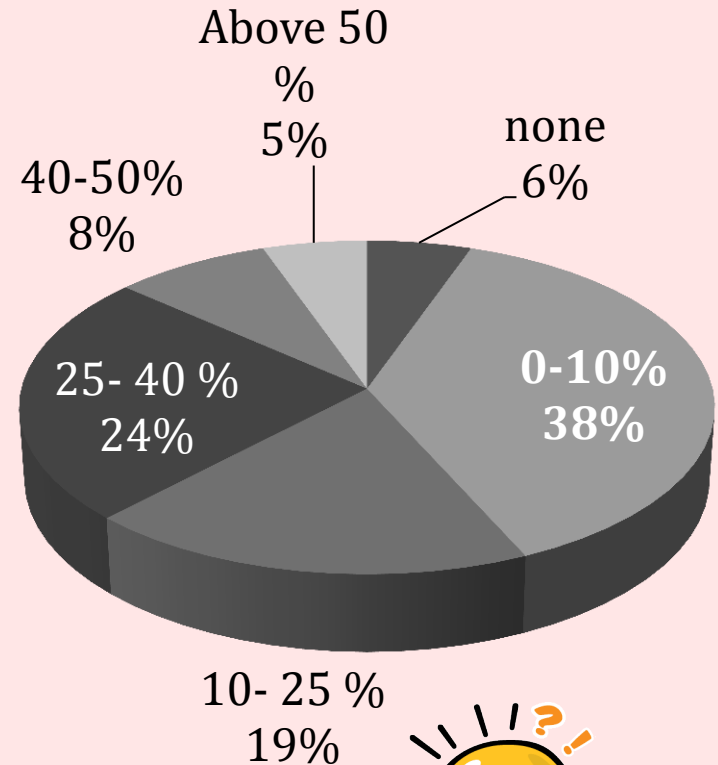


How many female PhD students are in your workplace-



50-40 %

How many senior female are in your workplace?



0-10 %





Take home message



(at least what I have learnt)

* Things are indeed getting better, but numbers are still NOT representative (so having more grads still does not mean we will have more Professors in 20 years time)

WHY?

* We are ALL biased (women, progressist, children, scientists!)

* It takes double thought to fight against unconscious discrimination/biases



Take home message



ACTIVE AND POSITIVE FIGHT



Women under high pressure



<http://www.lct.jussieu.fr/pagesperso/contrera/index-hp.html>

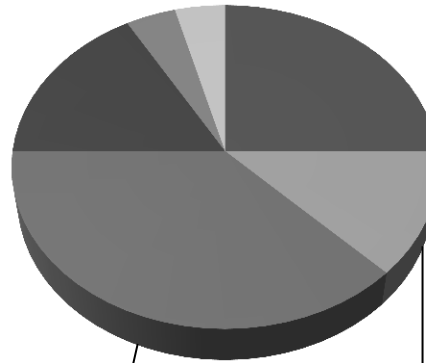
whp@lct.jussieu.fr



Survey Women under high pressure



How would you encourage female undergraduates in the audience to continue their path in becoming a scientist?



Role Models: the more who make it, the more likely we can affect change Follow your passion and let's pave the way for future
38%

good mentoring
12%

Find a good mentor who can both support you and help you evaluate yourself fairly





Women speak out loud



Jennifer Jackson: Caltech

Sakura Pascarelli : European Synchrotron
Radiation Facility

Margherita Citroni: Assistant Professor @ LENS

Barbara Lavina: University of Nevada Las Vegas

Renata Wentzcovitch: University of Minnesota



Survey Women under high pressure



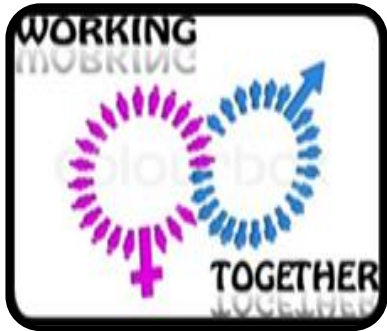
Discussion



Survey Women under high pressure



Further points suggested to be addressed



Two problems out there: discrimination by gender...but also due to femminity



It is not clear to me **how to manage positive discrimination**, because sometimes this fact is used to depreciate women position compared to men