

3rd Workshop on String Theory and Gender

Southampton, March 15-17, 2017

Summary

The gender part of this meeting consisted of two afternoons combining talks with discussion sessions. The 16 March session was focused on improving working conditions within the string theory community as a whole i.e. measures to be implemented by the community as a whole in conferences, journals, appointment panels, etc. The talks at the beginning of this session were given by Wim van Saarloos, a theoretical physicist and former head of the Dutch Physics Research Council, and Mike Childress, an astronomer. Both talked about the key issues in diversity and actions to address them.

The 17 March session was focused on diversity actions within a department. The talk beginning the session was given by Val Gibson, leader of the high energy group and the diversity team in Cambridge physics.

I. ACTIONS WITHIN THE STRING THEORY COMMUNITY

1. Talk at Strings Conference

The meeting endorsed the proposal for a talk on gender and diversity issues at the Strings Conference (as had been proposed at the previous two workshops but not acted upon). The meeting ultimately agreed to contact Andy Strominger to introduce and/or split a talk with a senior woman in string theory. The talk should 1) present clear data about diversity issues in the community and 2) present concrete suggestions for action, including announcing new initiatives to address the issues (such as those mentioned below). A gender/diversity session could be included at every Strings conference, as well as at the String Math, String Cosmology, and other major high-profile annual conferences.

Implicit Bias Test

The talk at Strings could discuss implicit/unconscious biases and encourage participants who have not done any unconscious bias training to take the online Harvard tests, as a first step: <https://implicit.harvard.edu/implicit/selectatest.html>

Gender bias in recommendation letters

The talk could draw attention to the issue of gender bias in recommendation letters: referees tend to use different descriptions for male and female applicants, with men for example more likely to be described as leaders and outstanding and women more likely to be called hard workers. Examples of phrases used in letters could be shown, together with data from social sciences research on this issue.

Diversity Representatives on Organising Committees

The talk should include the proposal to have an organiser responsible for diversity issues on the organising committee of workshops and conferences (including Strings, String Math, Strings Cosmology, etc). A number of physics institutes, such as Aspen and the Newton Institute, already have this requirement.

Action 1: Kostas and Marika to contact Strings organisers soon (copying in the leaders from COST network) and also contact Andy Strominger.

2. Web Resource

The meeting endorsed the creation of a website with useful resources on gender and diversity issues in the string theory community. The website could potentially be hosted in the same place as the current COST network (i.e. Weizmann's server) or another website used frequently by the community such as the common postdoc application website hosted in Leuven.

Key ingredients for the web resource were:

Mentors

The site could include a list of volunteer mentors (both men and women). A caveat here is that people are typically unlikely to contact mentors if they don't already know them and feel comfortable with them. Nonetheless, a list of people who are willing to help with diversity issues or just general support for postdocs/students in the field might be useful.

Discussion forum

There was some dialogue about whether a discussion forum on this website would be useful. It was agreed that a forum would need to be moderated/accessible only via password and that this would involve considerable time commitment for the forum managers.

Statistics

This site could host statistics relevant to the representation of women and other groups within the community.

Tools

The site could include guidelines for good practice in conference organisation, recruitment etc. Many such guidelines are already available at APS, IOP, etc. (see examples below), and links to these could be collected on this web resource. Information about existing diversity initiatives could also be included on the website.

Action 2: Set up working group to explore hosting and design for such a resource. Important for sustainability that little maintenance/moderation is required.

APS Web Resource:

<http://www.aps.org/programs/women/>

EU Gender Portal:

<http://www.genderportal.eu/>

IOP Web Resource:

http://www.iop.org/education/teacher/support/girls_physics/reports-and-research/page_63816.html

3. Hiring Procedures

Suggestions for hiring committees:

Gender neutral advertisements

Many advertisements put minorities off from applying due to (accidental) poor choices of wording. A recent example in the UK was the advertisement for the head of the new UK Research Council. The original advertisement gave the impression that a successful candidate would have an almost impossible set of skills, see discussion at

<http://wonkhe.com/blogs/people-one-chief-to-rule-them-all-ukri/>

A new advertisement was released which toned down the requirements and the number of female applicants then jumped sharply (although the job ultimately was awarded to a man anyhow!).

Unconscious bias training

Even if not required by your organisation, consider introducing unconscious bias training for panel members. For example, online training videos (just 10 mins.) could be shown before the Leuven postdoc assessment panel starts discussing candidates. Evidence shows that such training just before a panel makes assessors much more aware of their own biases.

Order of discussion of candidates

It is considered good practice to discuss first (while assessors are still fresh) candidates from minority groups (women, disabled, LBGT+, and others), who may be disadvantaged by unconscious biases.

Analysis of diversity on shortlists

If a shortlist is unbalanced (e.g. all men, all white), consider why the best female/non-white candidate did not make the shortlist. Some panels are asked to write a brief assessment of why the top candidates from minorities did not make the shortlist. This is useful in understanding why minorities are not being offered positions.

Monitoring statistics

It is good practice to look at the gender statistics for applicants, shortlists and offers. The Leuven postdoc site has already started to do this but it would be nice to monitor the statistics more widely. It would also be interesting to know how the gender ratios at faculty/postdoc/student level vary by country.

Action 3: Include these recommendations in Strings talk and on web resource.

Action 4: Initiate collection of data by country. Southampton group will set up Sharepoint with a template, showing collection of data for UK.

4. Measures of esteem

For promotion to senior positions, it is important for scientists to be able to demonstrate their esteem within the community. Measures of esteem include being on international organising committees for conferences, journal editorships, acting as PhD examiner, serving on external appointment panels, being on international fellowship panels and so on. Where possible, it is good practice to ask for expressions of interest in roles, rather than choosing somebody. (It would for example be quite feasible for journals like JHEP to ask for expressions of interest in becoming an editor, rather than editors being picked.) Where it is not possible or practicable to ask for expressions of interest, it is good to take diversity into account when choosing people for roles.

Action 5: Include in Strings talk? Talk directly to journals, etc.?

5. Working group

The above discussions suggest forming a working group to pursue actions year-round, rather than just at gender workshops. It does not seem that any group currently exists that could do this. If not, then many practical questions arise in forming a working group: who is on this working group? whom do they speak for? what are their specific duties? how

often should they meet? One possibility is that the String Theory and Gender workshops could be the annual general meeting for such a group.

***Action 6:** Ask participants from String Theory and Gender workshop whether they would like to join a working group. Use also the mailing list of Marian Lledo to ask for volunteers. The working group could also be announced in the Strings talk.*

II. ACTIONS WITHIN DEPARTMENTS

The discussions began by acknowledging that the issues vary quite considerably by country. For example, in Northern Europe the percentage of female undergraduate (Bachelors) physics students is quite low, around 20-25%, so a lot of effort is made by universities and schools to increase the number of women starting university in physics. In much of Southern Europe, the percentage of women at Bachelors level is much better but the numbers drop off sharply at research level. Similarly childcare provision and cost varies enormously by country and even within a country. The following suggestions are thus rather generic, and need to be adapted to each local environment.

Actions Targeting Undergraduates (Bachelors) students

1. Tutoring/Mentoring

Some participants felt that tutoring/mentoring programs for minority groups could be useful in providing both support and role models. On the other hand, other participants felt that tutoring/mentoring programs are historically ineffective and involve a lot of time from academics. Many senior women highlighted that the burden of supporting female students often falls disproportionately on them, when in fact all faculty should be involved.

***Suggestion:** Explore whether a mentoring programme would be useful in your department.*

2. Talks/training about diversity issues

It can be useful to hold talks for undergraduates about diversity issues relevant to them, stereotype threat, etc.

***Suggestion:** Investigate the right format for engaging with your Bachelors students on diversity issues, formal talks or informal discussions, and engage with them on diversity.*

3. Role models

Minority groups often feel as though they don't belong when they see no recognition of their group. It is good practice to highlight the achievements of minorities to provide role models.

For example, Physics and Astronomy at the University of Southampton has posters throughout the building with testimonials from graduates about how useful their degree has been. None of them stayed in academia. They are diverse in gender, race, etc. These serve to advertise the department, inform current students about job options outside of academia, and provide role models for women and other minority groups in physics.

More generally, all university materials and websites should be carefully checked for diversity: does your department give the impression that everyone working there is white and male?

***Suggestion:** Look at how role models can be provided for minorities, by posters through the department, diversifying the images on your website and other ways.*

Actions Targeting Graduate Students, Postdocs and Faculty

1. Mentoring and support

Mentoring and support within a department can be provided in many different ways. Social events enable networking and help junior scientists feel more comfortable about approaching senior colleagues for support. Other ideas include training sessions, lunchtime seminars and round table discussions.

2. Monitoring gender statistics

A very simple action that can improve the representation of minorities within a department is monitoring gender (diversity) balance in departmental seminars and colloquia. If your balance is below the average within the field, this may prompt you to think about inviting from a wider pool of speakers in future years. Other suggestions include mentioning on webpages for seminar series how diversity is taken into account in the running of the series and including an organizer responsible for diversity in every workshop/conference held in the department.

3. Webpage with diversity information

It is good practice for a department to have an easily accessible webpage devoted to diversity issues. The webpage should specifically include contacts for harassment i.e. where should somebody go to report or talk about issues? Some such webpages also have the facility for issues to be reported anonymously either to the diversity officer of the department or directly to the head of department.

4. Training on diversity

The talk by Mike Childress highlighted many of the issues faced by minorities: stereotype threats, mansplaining, implicit bias, and so on. If these concepts are not well known in your department, it can be useful to have talks introducing them or to run training sessions. Good online training materials are available, including quite formal training which involves a final test.

***Suggestion:** Have talks or training on diversity issues. Perhaps set up a weekly or monthly forum to discuss diversity issues informally. Such discussions can make colleagues more aware of the issues and also improve networking in your department.*

5. List of good practices

Many of the guidelines mentioned above (in the section on the string theory community), such as gender neutral wording of advertisements, appointment panels issues, open application for positions, and so on, also apply to departmental procedures.

6. Transparency of decisions, promotions criteria, workload etc.

There was a consensus between all participants that promotions criteria should be transparent and should also where possible take into account the effects of unconscious bias (e.g. women lecturers receive lower scores for teaching on average). Input from senior scientists about what is really needed to get to the next level would be appreciated - in many departments it seems that such advice is variable, with the level of support dependent on your own networks.

Many participants felt that a barrier in career progression is unbalanced workload allocation. Particularly in departments with a big gender imbalance, women often end up doing more pastoral care and outreach work, but this typically does not count for much in allocating workload. Women felt discouraged from seeking leadership roles and were reluctant to push against doing pastoral type roles. No easy solutions could be found for these problems beyond the following suggestions:

Suggestions: Transparency in promotions criteria and provision of advice about applying for promotions, several years in advance.

Workload model (which is used to allocate teaching, departmental jobs) to include full range of activities of a department, including equality and diversity activities (!).

Share and publish information about a group's decisions about appointments etc within the whole group.

Where practicable, share the list of candidates for positions for all staff members for input, not just with the members of the committee. (This can sometimes be excluded by confidentiality issues.)

7. Childcare support, particularly for conferences

It is essential for scientists to attend conferences but parents can face additional difficulties in doing so, because of the costs of children's travel and childcare. A small departmental fund to help contribute to such expenses can make a significant difference, particularly for early career researchers.

For institutes that have a lot of visitors, it is particularly helpful to compile information about local childcare facilities and (if possible) make arrangements with them to take children of visiting scholars.

Within the department, a good practice is to schedule all meetings, seminars, colloquia, etc. between 9am and 4pm (approximately), to accommodate those with child care constraints. Most parents of young children won't be able to attend talks in the early evening, for example, as daycare is not available then. And if you have part-time staff it is nice to rotate talks/meetings between different days of the week whenever possible so they don't continually miss them.

8. Harassment

Mild harassment or discrimination is often ignored as people don't want to make a fuss. Having a way of reporting it anonymously (e.g. via a website, as mentioned above) can be useful in some contexts but most incidents probably won't be reported. It is often recommended in diversity training that senior staff take the lead, and confront inappropriate behaviour when an incident occurs in front of them – although this can be rather awkward to do in practice.

Another suggestion is to incorporate discussions on harassment and inappropriate behaviour into diversity training and diversity talks. This promotes a culture in which harassment is not acceptable and in which everyone understands better what is and is not acceptable in the workplace.

Participants

Marco Caldarelli, University of Southampton
Michael Childress, University of Southampton
Jan de Boer, University of Amsterdam
Oscar Dias, University of Southampton
James Drummond, University of Southampton
Nick Evans, University of Southampton
Sebastian Fischetti, Imperial College London
Joan Garcia Tormo, University of Southampton
Annalisa Gastaldello, University of Southampton
Valentina Giangreco Puletti, University of Iceland
Mariana Graña, Institut de Physique Théorique CEA/Saclay
Alice Harpole, University of Southampton
Gianluca Inverso, CAMGSD - IST Lisboa
Giorgios Katsianis, University of Southampton
Cynthia Keeler, Niels Bohr Institute, Copenhagen
Victoria Lepingwell, University of Southampton
Esperanza Lopez, IFT Madrid
Yolanda Lozano, University of Oviedo
Andrea Marzolla, Université Libre de Bruxelles
Ramon Masachs, University of Southampton
Moein Mirza Amraji, King's College London
Ben Niehoff, KU Leuven
Carlos Núñez, University of Swansea
Andy O'Bannon, University of Southampton
Emma Osborne, University of Southampton
Susha Louise Parmeswaran, University of Liverpool
Hynek Paul, University of Southampton
Silvia Penati, Università Milano-Bicocca
Aaron Poole, University of Southampton
Ronald Rodgers, University of Southampton
Yafet Sanchez-Sanchez, University of Southampton
Stanislav Schmidt, University of Southampton
Zoe Slade, University of Southampton
Kostas Skenderis, University of Southampton
Gianmassimo Tasinato, University of Swansea
Marika Taylor, University of Southampton
Ivonne Zavala, University of Swansea
Céline Zwickel, Université Libre de Bruxelles