

# Department of Physics – Plan for Equal Rights and Opportunities, 2023

Approved by the Board of Physics on 2023-02-23

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## 1. Introduction

### 1.1. About the Plan for equal rights and opportunities

The Discrimination Act (SFS 2008:567) establishes the university's responsibility in matters relating to equal rights and opportunities regarding grounds for discrimination<sup>1</sup>. These are

- sex
- transgender identity or expression
- ethnicity
- religion or other belief
- disability
- sexual orientation
- age

and information how these are handled within the discrimination act can be found at <https://www.do.se/other-languages/english/what-is-discrimination/>. The university shall work actively to counteract all types of discrimination, take the necessary measures in the event of discrimination and provide guidelines and routines for preventing harassment and discrimination.

Stockholm University ("SU") shall also establish a *plan for diversified recruitment* in its capacity as education provider. In addition to this central activity, the board of Stockholm University has determined that each department or equivalent with more than 25 employees shall establish three-year plans with goals and measures to be taken for the areas specified in the Discrimination Act. The objectives and measures in each individual department's plan shall aim partly to achieve the university-wide objectives set out in the central plan and partly to implement measures that are specifically adapted to the circumstances at the department in question.

The minimum requirement for individual institutions is to establish a document every three years, proposing at least three measures to be implemented to promote equal treatment. At the Department of Physics ("Fysikum"), all documentation and proposals for measures have been gathered in one document – *The Fysikum Plan for Equal Rights and Opportunities*. The plan has been prepared by the *Equal Rights and Opportunities Committee* at Fysikum and approved by the department board. The plan is revised yearly and the proposed measures are followed up annually.

Besides this introduction, the plan is divided into three main parts: The part "*Situation analysis*" analyzes the current situation at the department with regard to distribution in terms of gender, salary situation and the occurrence of harassment. In the section "*Goals and measures*" a number of concrete goals and measures that Fysikum intends to implement in order to improve equality at the department are described. For each item, there is a person responsible and a deadline for when the measure must be completed. In the third and final paragraph "*Evaluation of previous plan*", a review is made of the measures defined in last year's plan. In the Appendix, statistics are reported and updated every second year.

### 1.2. Stockholm university's ("SU") plan for equal rights and opportunities

The following sections translated from SU's "centrala Arbetsmiljö- och lika villkorspolicy"<sup>2</sup> summarize the objectives for equal working conditions also at the Department of Physics:

*Stockholm University wants to create a safe and inspiring environment to work and study in. This presupposes that all employees and students actively participate and together create an inclusive work and study environment. Equal conditions is a collective term for promoting equal rights and opportunities for all employees and students, regardless of gender, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation or age.*

*Stockholm University must offer good conditions and opportunities for employees and students. The work and study environment shall take advantage of the resources that employees and students with different backgrounds, life situations and skills bring to the university. Everyone must treat each other in a respectful way and at Stockholm University there is zero tolerance for discrimination, harassment, sexual*

<sup>1</sup> <https://www.su.se/staff/organisation-governance/governing-documents-rules-and-regulations/equal-treatment-equal-opportunities-widening-participation>

<sup>2</sup> <https://www.su.se/medarbetare/organisation-styrning/styrdokument-regelboken/arbetsmilj%C3%B6-och-h%C3%A4lsa/arbetsmilj%C3%B6-och-lika-villkorspolicy-1.464030>

*harassment and abusive discrimination.*

*The work environment and equal conditions work at Stockholm University must have a preventive focus and all employees and students must jointly take responsibility for the university's efforts to constantly improve the work and study environment. We create the work environment and all employees and students are responsible for actively contributing to a good physical, organizational and social work environment.*

Furthermore, the university's plan for broadened recruitment lays the foundation for that work at the Department of Physics:

*The university shall strive to recruit broadly, both locally and nationally and internationally, to ensure that a diversity of students is given the opportunity to study at Stockholm University. The opportunities to study in languages other than Swedish, especially English, will be communicated further. An important part of broadened recruitment is also to actively strive to attract students from environments unaccustomed to studies, which increases the opportunities to recruit the best students regardless of background. Through this, the university contributes to sustainable societal development. Broadened recruitment also contributes to heterogeneous student environments and to more perspectives being expressed in the university's education and research, which in turn promotes the quality of education.*

More information about the work for equal treatment is found on Stockholm university's website<sup>3</sup>.

### 1.3. Equal rights and opportunities at Fysikum

Fysikum works actively to achieve equal conditions among students and employees. Part of this work concerns diversified recruitment, including e.g., gender, ethnicity, disability, and socio-economic background. Equal conditions are not just a matter of achieving diversity among students and employees but is also about creating a good work and study environment for everyone at Fysikum. The work for equal terms and conditions is *necessarily* conducted at departmental level in order to be successful, as meetings between teacher and student, or between employees, usually take place within the department. Therefore, the work for equal teaching and equal treatment is a matter for the department. Information about the work for equal conditions, contact persons, etc. is found on Fysikum's website<sup>4</sup>.

Physics as a subject has traditionally been regarded as a typically masculine coded subject, which is reflected in the fact that Fysikum has an uneven gender distribution with a predominance of men in research and education, from students in undergraduate programs to professors. The proportion of women among employed researchers and teachers is significantly lower than among students and PhD students, who constitute the recruitment base for employees. It is therefore important to have an active gender equality work at the department. Among students at the undergraduate and postgraduate levels, the proportion of women is about 30%. Also in other categories, the gender distribution is uneven; mainly women work within the administration while the technical staff mainly consists of men, see figure 2 in the Appendix.

### 1.4. Equal Rights and Opportunities Committee

In 2004, the board of Fysikum set up a local gender equality group. During the years, the work of the group has broaden and in 2016, the group was named "*Equal Rights and Opportunities Committee*". Its purpose is to visualize and work with issues concerning equality, accessibility, diversified recruitment, harassment and abusive discrimination. Employees and students at Fysikum can turn to members of the committee to bring attention to irregularities in these areas. The committee is also responsible for reviewing the Plan for equal rights and opportunities and proposing changes to the board. The group is appointed by the board and consists of Fysikum's representatives in matters concerning equal conditions, two teachers, a representative from the technical-administrative division, two PhD students and two representatives from the undergraduate education, one of whom should be the equality representative appointed by the PhD council and the subject council.

The current composition of the committee is:

- Convenor: Henning Zettergren
- Fysikum's Representative for Equal Rights and Opportunities and Teacher Representative: Sara Strandberg

<sup>3</sup> <https://www.su.se/staff/organisation-governance/governing-documents-rules-and-regulations/equal-treatment-equal-opportunities-widening-participation>

<sup>4</sup> <https://www.fysik.su.se/english/about-us/policy-documents/equal-rights-and-opportunities>

- Teacher Representative: Hiranya Peiris
- Representative from Technical-Administrative division: Malin Hell
- Postdoc representative: Tien-Tien Yeh
- PhD Student Representatives: Ellen Maria Riefel and Raka Paul. Substitutes: Konstantina Dachlythra and Alexandre Adler
- Work environment representative: Henrik Öström
- Student Representative: Ashley Fowler and Eleonora Svanberg

Fysikum's Representative for Equal Rights and Opportunities is the contact person for those subjected to harassment in any way. Everyone has a duty to report, if aware of harassment. The representative registers these incidents and reports them to the department management and/or Stockholm University's Coordinator for Equal Rights and Opportunities, in accordance with the *Action Plan in the event of harassment at Fysikum*<sup>5</sup>. If the notifier so wishes, he/she can remain anonymous. It is especially important to support the person who has been subjected to harassment in the best possible way, in order to deal with the malpractice, they are experiencing.

Representative for Equal Rights and Opportunities is Sara Strandberg, e-mail strandberg@fysik.su.se, with office C5:1001:

## 2. Situation analysis

### 2.1. Conditions of employment

At Fysikum, all admitted PhD students receive a doctoral position from the start of their employment. Other employees are usually permanently employed, exception being post-doctoral positions that cover a period of two years and recruitment positions as Assistant Professors. In the academic career path, an important basis for merit is to serve one or more periods in a post-doctoral position at a higher education institution other than the one in which one graduated.

According to the salary statistics from 2022 (Table 1), the difference in the average/median salary for women and men vary between the different categories and in some cases significantly compared to the corresponding statistics from 2020. However, it is difficult to draw conclusions regarding possible systematic differences as women are strongly underrepresented in all academic categories (professors, associate professors, assistant professors, and researchers) and in technical positions. Individual salaries can therefore give large deviations. Figure 1 shows how the salaries for women and men are distributed in relation to the lower quartile (25% have a lower salary), the median value and the upper quartile (25% have a higher salary) for academic staff, TA staff, and for these two categories together. The proportion of women with a salary below the median value is higher than for men, but it is difficult to conclude whether there are systematic differences as factors such as non-permanent positions, different tasks and areas of responsibility (TA staff) and age have not been taken into account in the compilation. Figure 1, on the other hand, clearly shows that women are strongly underrepresented and an important overarching goal is therefore to achieve an even gender distribution within all staff categories (see section 3.1).

	Difference in average salary	Difference in median salary
Professor*	+3667 kr (+2091 kr)	-1200 kr (-2100 kr)
Associate Professor	-2293 kr (-6474 kr)	-1900 kr (-7700 kr)
Assistant Professor	N/A (-2460 kr)	N/A (-2600 kr)
Researcher	-544 kr (+2450 kr)	-2300 kr (+2950 kr)
Technical staff	+911 kr (-1900 kr)	-1150 kr (+78 kr)
Administrative staff	-1553 kr (-1806 kr)	-2900 kr (-3050 kr)

**Table 1:** Differences in salary from 2022 (from 2020 in parenthesis)<sup>6</sup>: Average/Median salary per month for women minus average/median salary for men in each category. The statistics for Professors exclude the services of excellence whose salaries are determined in a special order.

<sup>5</sup>[https://www.fysik.su.se/polopoly\\_fs/1.534040.1608632806!/menu/standard/file/handlingsplan\\_2015\\_EN.pdf](https://www.fysik.su.se/polopoly_fs/1.534040.1608632806!/menu/standard/file/handlingsplan_2015_EN.pdf)

<sup>6</sup> The table is updated every second year.



**Figure 1:** Statistics from 2022<sup>6</sup> for academic staff (professors, associate professors, assistant professors, and researchers), TA-staff, and for these two categories together (all): Number of women and men with a salary below the lower quartile, between the lower quartile and the median, between the median and upper quartile, and higher than the upper quartile.

## 2.2. Work, studies and parenting

Fysikum strives for the opportunity of combining work/study with parenthood. As a general rule, no exams should therefore be held on Saturdays. Deviations are sometimes made from this rule, especially for advanced level courses, to avoid exams being conducted for different courses on the same day. In order to facilitate the combination of parenthood with active participation in department meetings, meetings should preferably be held during the fixed working hours (from 9 a.m. to 3 p.m). For meetings where student representatives are expected to attend, consideration shall be taken to their scheduled tuition to facilitate the student's participation. The flow of information at Fysikum takes place almost exclusively via electronic media, which provides good opportunities for employees on parental leave to obtain information from the workplace.

## 2.3. Occurrence of harassment

For a number of years, a questionnaire has been distributed to the students in the first and second year of their education, to capture any possible misconduct among them. The overall result shows that the conditions at the department are generally good, but that there have been isolated cases of sexual harassment in the relations between students as well as in the "student – teacher" relationships. In a few cases of a serious nature, students and staff have contacted the Representative for Equal Rights and Opportunities.

Every three years, the PhD students at the Department of Physics answer a questionnaire concerning their perception of the working conditions. It is noticeable from previous surveys that a large proportion find the job stressful which impacts their well-being negatively. As a result, Fysikum has conducted a seminar for stress management, but it is important that the work continues continuously. One out of ten employees have experienced some type of violation. None of the victims has turned to the Representative for Equal Rights and Opportunities. In general, PhD students seem to know where to turn in the event of any type of violation.

As part of a university-wide initiative, an employee survey was conducted at Fysikum in the autumn of 2018. The survey, which included questions about work climate, leadership, organization and visions & goals, painted a positive picture of the situation at the department. However, it also pointed to some areas that can be further improved, e.g. in terms of information and clarity in the organization. The survey also indicated that employees in 2018, to a very small extent, had felt exposed to harassment, abusive discrimination and in some cases sexual harassment. In 2019, Fysikum continued the work with the survey, e.g. with information meetings and workshops. Follow-up with regard to harassment and abusive discrimination takes place in consultation with the human resources department and in line with SU's central guidelines.

## 2.4. Recruitment routines

There must always be potential applicants among the underrepresented gender when recruiting researchers/ teachers, in order for the position to be advertised - unless special reasons exists. This is monitored by the Committee for Research Strategy, which is the preparatory body of the board in these matters. The most recent survey found that the proportion of female applicants for Assistant professorships, senior lectureships and professorships in the Department of Mathematics and Physics was 15%, while the proportion of women employed was 19%. According to the results, it appears that in order to increase the proportion of female employees, efforts are required to increase the number of female applicants.

The proportion of female students among newly registered students in the first year is relatively stable at a level of 30%. The Appendix shows the number of male and female students, as well as the proportion of female students in different years and programs. In the outward-looking activities, which play an important role in the process of recruitment of students, Fysikum strives to engage people of different genders and backgrounds.

## 3. Goals and actions

### 3.1. Goal

In the field of equality, Fysikum has three general goals:

1. No form of discrimination shall occur at Fysikum, either among employees or students.

This goal is definite; all cases of discrimination in the department are a failure and require immediate and vigorous action.

2. Every student at Fysikum shall have equal opportunities to assimilate the teaching and to influence and participate in decisions concerning the design of the education. All employees shall have the same opportunity to develop professionally and to participate in and influence the decision-making processes at the department.

This means that i) Fysikum should make education accessible to all groups that are protected by the Discrimination Act, and that ii) under-represented groups must be represented in preparatory and decision-making bodies to at least the share they constitute at Fysikum.

3. We strive for an even gender distribution in all staff and student categories.

This means that i) the proportion of female students should not decrease in higher grades, and ii) that the proportion of female teachers and researchers who are promoted or receive higher positions should be the same as among male teachers and researchers. We agree with the traditional definition of equal gender distribution, i.e. the proportion of women and men is in the range of 40-60%. The level of ambition must reasonably be adapted to the current situation, see Figure 2 and Figure 4 in the Appendix. It is important to work actively to be able to achieve this goal. How this goal will be achieved is currently unclear but initiatives such as e.g. launching an Athena Swan pilot scheme at Fysikum (see section 3.1) is expected to play a pivotal role. Since the gender distribution among employees (excluding PhDs) deviates so strongly from an even distribution, we must see this as a long-term goal and in the meantime formulate two short term goals for development:

- a.) There shall be representatives from both sexes in the group of applicants called for interview for positions at the Administrative and/or Technical division.
- b.) The proportion of women among newly recruited teachers/ researchers should exceed

1/3, measured as a rolling average over a period of three years.

## 3.2. Measures

To achieve the set goals, we conduct a number of measures. These can be divided into two categories; either selective measures, carried out once or routine measures carried out every year.

### 3.2.1. Selective measures

1. Continue with the work towards launching an Athena Swan<sup>7</sup> pilot scheme at Fysikum.
2. Continue the discussions with the Department of Astronomy and the newly formed ED&I committee at Nordita on coordinating efforts and co-arranging activities.
3. Arrange a workshop on Accessible teaching for those who couldn't attend the workshop on Dec. 5, 2022 (see below).
4. Follow-up the discussions regarding making the Albanova premises more inclusive (e.g. installing door openers to improve accessibility, adding gender-neutral changing rooms and/or bathrooms and replacing/updating the pictures of Nobel laureates outside the AlbaNova restaurant).
5. Follow-up on the outcome from the Half a day (*Town hall*) discussions regarding work environment and hierarchies for the PhD students (see below). Compile statistics and summarise the main findings in this document.
6. Compile and follow-up on statistics, broken down by gender, on the recruitments at Fysikum. Include the statistics in this document.
7. Compile and follow-up on statistics concerning the distribution of teaching among female and male PhD students. Include the statistics in this document.
8. Prepare input and feedback for SU's central survey on harassment that is planned to be carried out in 2023.

### 3.2.2. Routine measures

1. All assistants shall be informed of the relationship with the students. The information must be provided at the beginning of each academic year and is mandatory for new PhDs with assistant positions. *Responsible:* Fysikum's Representative for Equal Rights and Opportunities.
2. At the PhD council's spring meeting, the PhD's representatives shall inform the PhDs about the work of the Equal Rights and Opportunities Committee. *Responsible:* The PhD's representatives.
3. Once per semester, inform via e-mail about the equal rights and opportunities committee's work, where to find information and how to proceed in the event of harassment/discrimination. *Responsible:* The convener of the Equal Rights and Opportunities Committee.
4. The survey "Study environment and harassment" is conducted during the spring semester with first-year students as target group. In connection with this the students shall be reminded about Fysikum's work for equal conditions, the policy regarding sexual harassment and where they can turn for help, as well as the possibility of moving compulsory course elements for festive reasons. *Responsible:* The PhD's representatives.
5. Newly admitted students at the bachelor's program and the master's program at Fysikum, must, in connection with appeals and information meetings at the beginning of the autumn term, be informed about Fysikum's work for equal conditions, the policy regarding sexual harassment and where they can turn for help, as well as the possibility of moving compulsory course elements for festive reasons. *Responsible:* Fysikum's Representative for Equal Rights and Opportunities.
6. Once a year present the work and procedures at a collegium meeting. *Responsible:* Fysikum's Representative for Equal Rights and Opportunities.
7. In March or April, the collegium members shall be informed about this year's Plan for Equal Rights and Opportunities and Fysikum's Action plan against sexual harassment. *Responsible:* The convener of the Equal Rights and Opportunities Committee.
8. Technical and administrative staff shall be informed of the Plan for Equal Rights and Opportunities and the Action plan against sexual harassment at Fysikum. *Responsible:* TA representative of the equal rights and opportunities committee.
9. At least one seminar on gender equality/ equality shall be arranged per semester. *Responsible:* The Equal Rights and Opportunities Committee.
10. All new required reading is examined from a gender equality perspective. *Responsible:* The

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<sup>7</sup> <https://www.advance-he.ac.uk/equality-charters/athena-swan-charter>



- Equal Rights and Opportunities Committee.
11. Encourage the Colloquium Committee at AlbaNova to maintain diversity among the colloquium speakers. Ask the committee to compile statistics and reflect on the diversity among the speakers. *Responsible:* The convener of the Equal Rights and Opportunities Committee.
12. Carry out the doctoral and post docs student survey every three years. (Last performed in May 2022) *Responsible:* The PhD's representative.

### 3.3. Evaluation of previous plan

#### 3.3.1. Selective measures 2022

1. Update the Action plan in case of harassment. Scheduled for spring, 2022. *Outcome: The plan has been updated and will be sent for approval by the board in the beginning of 2023.*
2. Continue the discussion with the Department of Astronomy on coordinating efforts and co-arranging activities. Scheduled for spring, 2022. *Outcome: The committee is coordinating efforts with the Astronomy department and KTH regarding the Albanova premises (item 3 below). Additional common activities are to be discussed in 2023.*
3. Follow up the discussions with the director at Albanova regarding making the premises more inclusive (e.g. installing door openers to improve accessibility, adding gender-neutral changing rooms and/or bathrooms and replacing/updating the pictures of Nobel laureates outside the AlbaNova restaurant). Scheduled for spring, 2022. *Outcome: The committee has sent a reminder to the director about these issues together with a proposal on how to update the picture wall of Nobel laureates outside the Albanova restaurant .*
4. Half a day (Town hall) discussions about work environment and hierarchies aimed at PhD students. Scheduled for spring 2022 *Outcome: Done*
5. Invite a speaker to the "pedagogical lunches" if these are organized again after the break caused by the pandemic, or to a zoom-seminar organized by KLV. Scheduled for 2022. *Outcome: The committee has organized a lunch seminar on Dec 16, 2022.*
6. Follow up the discussion on equality, diversity, and inclusion - how to challenge racism, sexism and white privilege at the department? Find a suitable speaker for a seminar. Scheduled for 2022. *Outcome: A potential speaker has been identified and will be invited to give a seminar during the spring 2023 .*
7. Compile statistics, broken down by gender, on the recruitments at Fysikum, and include the statistics in this document. Scheduled for autumn 2022. *Outcome: To be done 2023*
8. Compile statistics concerning the distribution of teaching among female and male PhD students, and include the statistics in this document. Scheduled for autumn 2022. *Outcome: To be done 2023*
9. Prepare input and feedback for SU's central survey on harassment that is planned to be carried out in 2023. Scheduled for autumn 2022. *Outcome: To be done 2023*

#### 3.3.2. Routine measures 2022

1. All assistants must be informed about the relationship with the students. The information must be provided at the beginning of each academic year and is mandatory for new PhD students with assistant positions. *Outcome: Done*
2. The PhD representative shall present the work of the committee for Equal Rights and Opportunities at the autumn and spring meetings of the PhD council. *Outcome: Done*
3. The survey "Study environment and harassment" is conducted during the spring semester for first-year students. *Outcome: Done*
4. Newly admitted students at the bachelor's program and the master's program at Fysikum must, in connection with the call in August, be informed about Fysikum's policy regarding sexual harassment and where they can turn for help if something happens. This information must be repeated at the beginning of the spring semester for the students in the first year of the bachelor's programs. Second-year students must be informed in connection with the distribution of the survey "Study environment and gender". *Outcome: Done*
5. Once per semester, inform via email about the equal rights and opportunities committee's work, where information is available and how to proceed in the event of harassment/discrimination. *Outcome: Done*
6. Once a year present the work and procedures at a collegium meeting. *Responsible:* Fysikum's Representative for Equal Rights and Opportunities. *Outcome: Done*
7. In March or April, the collegium members shall be informed about this year's Plan for Equal Rights and Opportunities and about Fysikum's Action plan against sexual harassment.



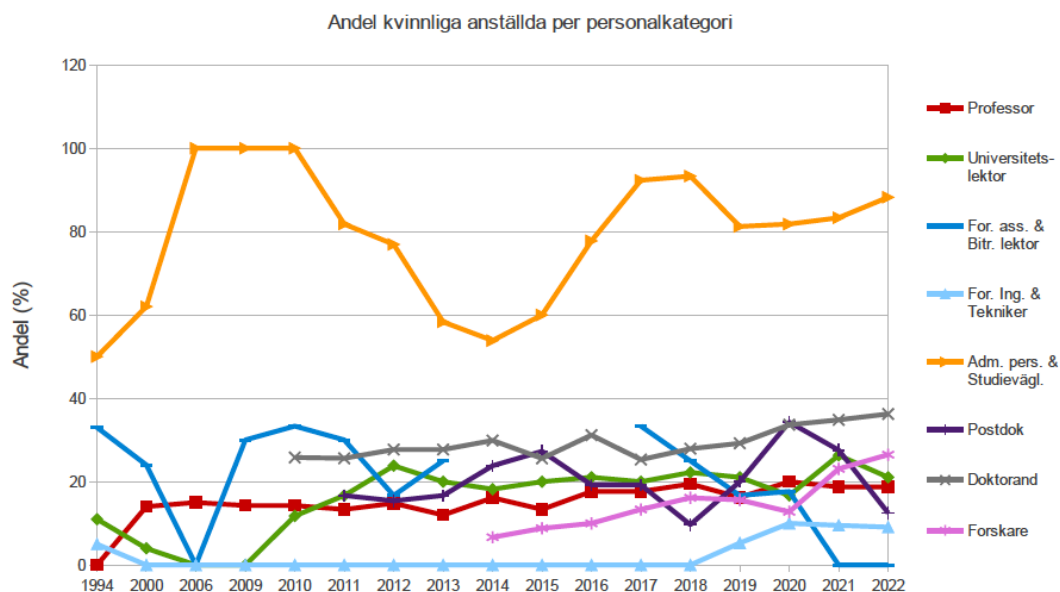
*Outcome:* Done

8. Technical and administrative staff shall be informed about the Plan for Equal Rights and Opportunities and the Action plan against sexual harassment. *Outcome:* Done
9. At least one seminar on gender equality /equality shall be arranged each year, possibly in collaboration with OKC. *Outcome:* Done
10. All new required reading is examined from a gender equality perspective. *Outcome:* Done
11. Encourage the Colloquium Committee at AlbaNova to maintain an equal gender distribution among colloquium speakers. *Outcome:* Done. Of a total of 15 colloquium speakers in 2022, 13 were men (87%) and 2 were women (13%). This is a lower proportion of female speakers compared to 2022 (32%) and 2021(17%), and far below the target of a minimum of 40% female speakers.
12. Complete the PhD student survey every third year. *Outcome:* Done (May 2022).

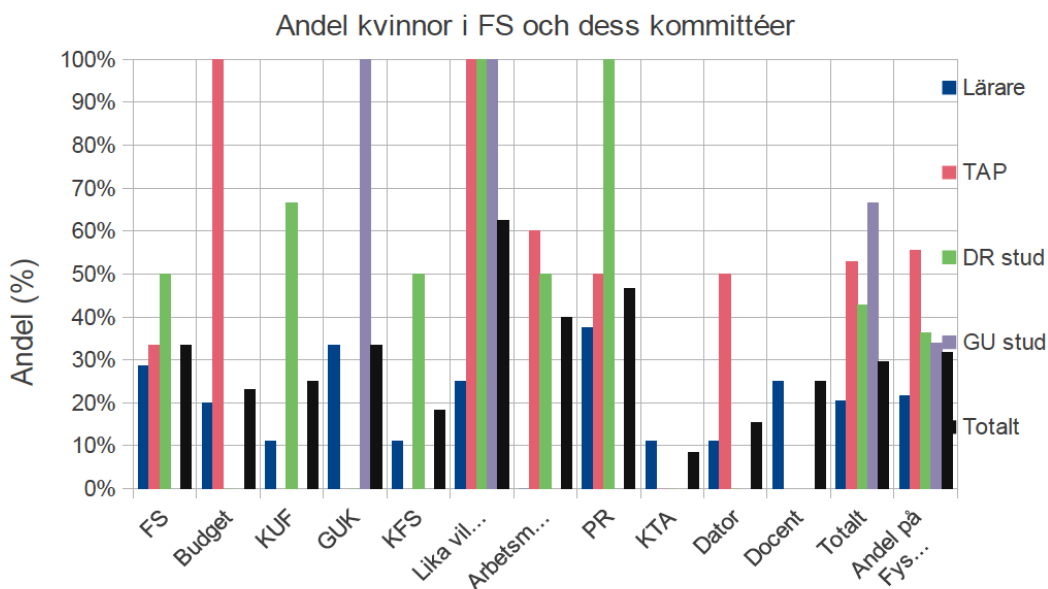
## 4. Appendix: Statistical data

The figures are updated every second year, last updated in 2022.

### 4.1. Personnel

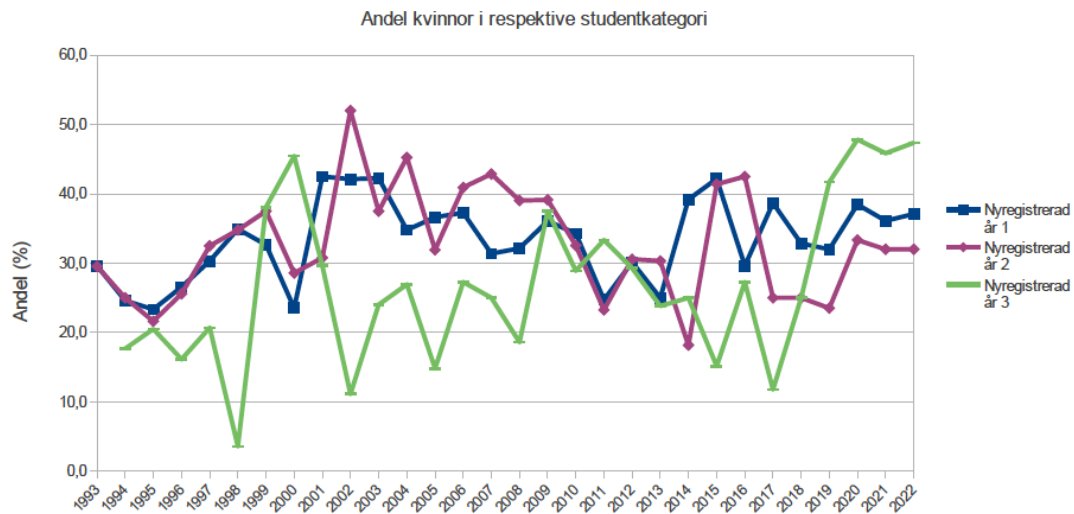


**Figure 2:** Fraction of women for different positions.



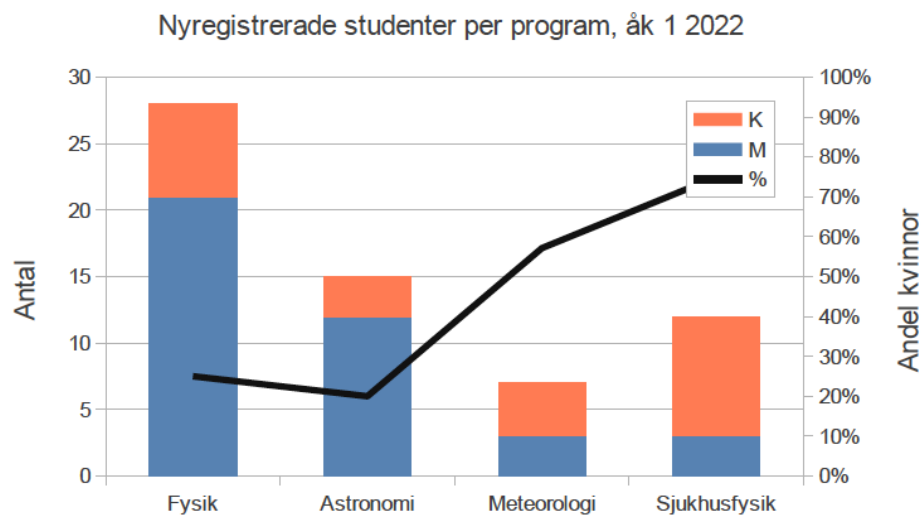
**Figure 3:** Fraction of women in the Fysikum board and the different committees.

## 4.2. Students

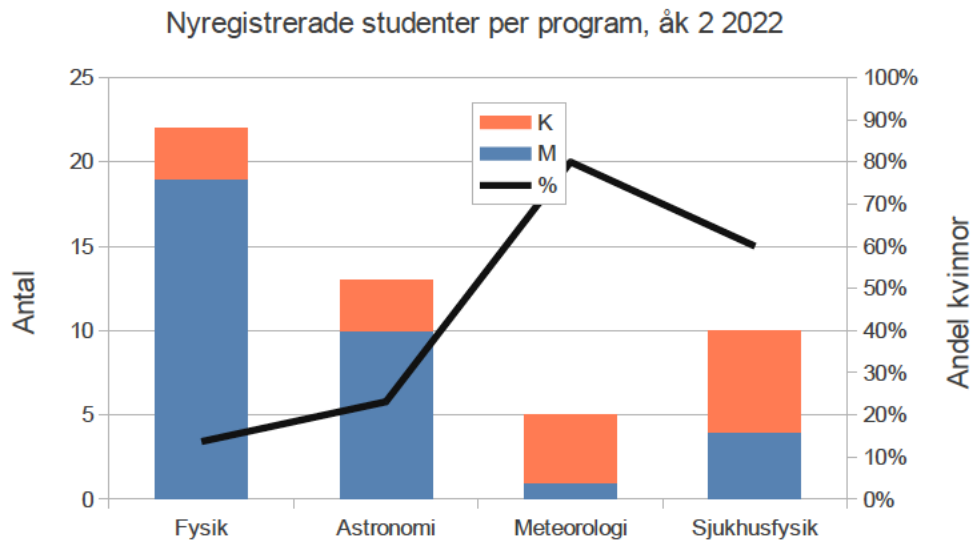


The fractions of female students at the undergraduate programs are based on newly registered students at the bachelor courses.

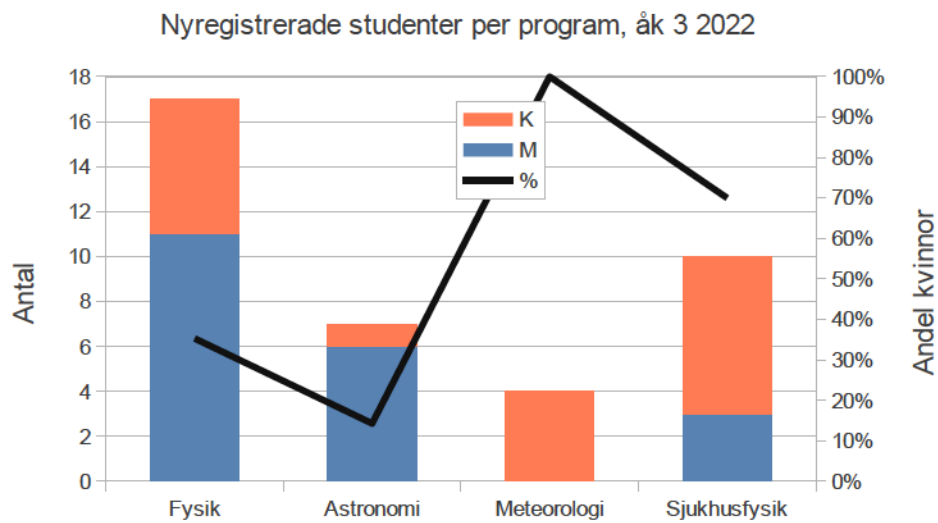
**Figure 4:** Newly registered for different grades.



**Figure 5:** Students at the different programs, first year.



**Figure 6:** Students at the different programs, second grade.



**Figure 7:** Students at the different programs, third-year.