

Department of Physics – Plan for Equal Rights and Opportunities, 2021

Approved by the Board of Physics on March 25, 2021

Table of content

Department of Physics – Plan for Equal Rights and Opportunities, 2021	1
1. Introduction.....	2
1.1. About the Plan for equal rights and opportunities.....	2
1.2. Stockholm university’s (“SU”) plan for equal rights and opportunities	2
1.3. Equal rights and opportunities at Fysikum.....	3
1.4. Equal Rights and Opportunities Committee	3
2. Situation analysis	4
2.1. Conditions of employment	4
2.2. Work, studies and parenting	4
2.3. Occurrence of harassment	4
2.4. Recruitment routines	5
3. Goals and actions	5
3.1. Goal	5
3.2. Measures	6
3.2.1. Selective measures.....	6
3.2.2. Routine measures.....	6
3.3. Evaluation of previous plan	7
3.3.1. Selective measures 2020.....	7
3.3.2. Routine measures 2020.....	7
4. Appendix: Statistical data	9
Bilderna nedan uppdateras vartannat år, senaste uppdateringen var 2020.	9
4.1. Personel	9
4.2. Students	10

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 discrimination¹. 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"² 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 harassment and abusive discrimination.

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

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

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 website³.

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 website⁴.

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

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

⁴<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
- PhD Student Representatives: Konstantina Dachlythra and Sunniva Jacobsen
- Student Representative: 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*⁵. 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 A4:1025 **update office**

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.

The difference in the average monthly salary and median salary for women and men vary between the different categories (Table 1). 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 slightly 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*	+2091 kr	-2100 kr
Associate Professor	-6474 kr	-7700 kr
Assistant Professor	-2460 kr	-2600 kr
Researcher	+2450 kr	+2950 kr
Technical staff	-1900 kr	+78 kr
Administrative staff	-1806 kr	-3050 kr

Table 1: Differences in salary from 2020⁶: 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.

⁵https://www.fysik.su.se/polopoly_fs/1.534040.1608632806!/menu/standard/file/handlingsplan_2015_EN.pdf

⁶The table is updated every second year.



Figure 1: Statistics from 2020⁶ 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 in the middle of the working day, i.e. neither too early nor too late. 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 exist. This is monitored by the Committee for Research Strategy, which is the preparatory body of the board in these matters. A 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. 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 to investigate if it would be beneficial to co-arrange activities with the Department of Astronomy. Scheduled for spring, 2021.
2. Find a suitable speaker to invite to the “pedagogical lunches” (as soon as these are back on the schedule after a period absence). Scheduled for 2021.
3. Contact the new director at Albanova and discuss aspects of the Albanova building in terms of people with disabilities, such as door openers and special rooms for examination for students with special needs. Scheduled for spring, 2021.
4. Half a day (*Town hall*) discussions about work environment and hierarchies aimed at PhD students. Scheduled for autumn 2021.
5. Contact the PR-committee to start a discussion regarding broadened recruitment at the student level. Scheduled for spring 2021.
6. Look over possibilities about updating the pictures of Nobel laureates outside the AlbaNova restaurant. Include other laureates, local physicists. Scheduled for spring 2021.
7. As a follow-up of the SU central study about recruitments, review how the recruitment at Fysikum is done from a gender perspective. Scheduled for autumn 2021.
8. Follow up the statistics concerning the distribution of teaching among female and male PhD students. Investigate why women choose to teach to a lesser extent, especially at master's level. Scheduled for spring 2021.
9. Update the equal opportunity plan to be more balanced with respect to any type of discrimination. Scheduled for autumn 2021.
10. Continue our work regarding ethnicity. Investigate if it would be helpful with a survey that could shed light about the situation at Fysikum. Scheduled for spring 2021.

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. The survey “Study environment and harassment” is conducted during the spring semester with first-year students as target group. *Responsible:* The PhD’s representatives.
4. 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. Students will be informed again in connection with the distribution of the survey “Study environment and harassment”. *Responsible:* Fysikum’s Representative for Equal Rights and Opportunities (information) and the PhD Representative (questionnaire).
5. 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.
6. Once a year present the work and procedures at a collegium. *Responsible:* Fysikum’s Representative for Equal Rights and Opportunities.
7. In March or April, the Collegium? will be informed of 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 Equal Rights and Opportunities Committee.
11. Encourage the Colloquium Committee at AlbaNova to maintain diversity among the colloquium speakers. *Responsible:* The convener of the Equal Rights and Opportunities Committee.

12. Carry out the doctoral student survey every three years. (Last performed in December 2018.)
Responsible: The PhD representative.

3.3. Evaluation of previous plan

3.3.1. Selective measures 2020

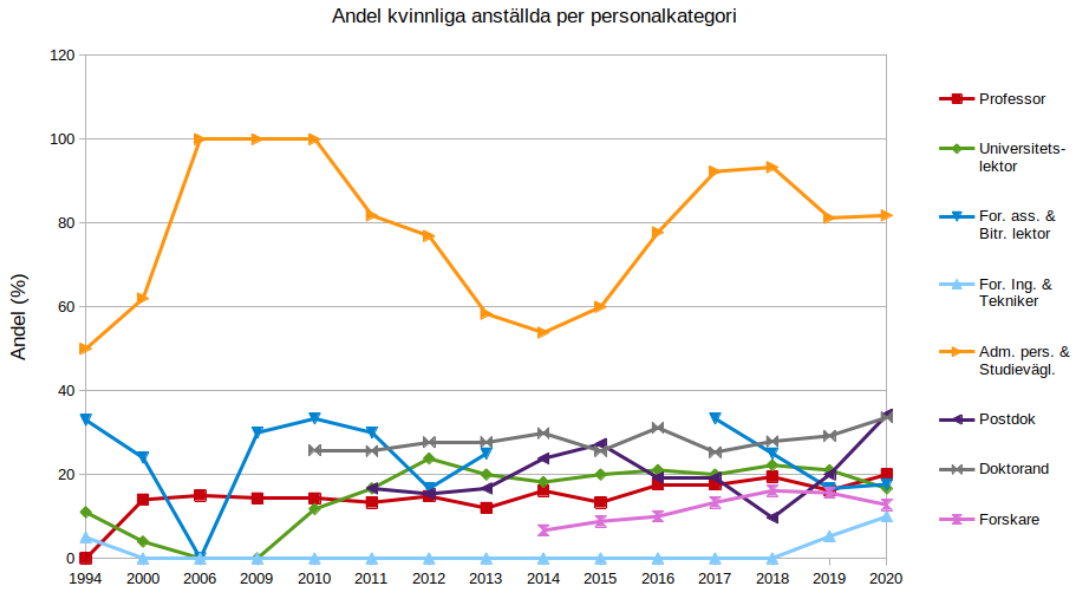
1. Investigate if it would be beneficial to co-arrange activities with the Department of Astronomy which have begun to work more actively on related issues. *Outcome:* Been in contact with them, but main responsible for these questions has left and we have established contact with two other members from that department. They are both interested to discuss the possibilities of having joint activities.
2. Find a suitable speaker to invite to the "pedagogical lunches". *Outcome:* Talked to Emma Wikberg who is responsible for the lunches and received the "green light", but due to the pandemic this activity has been on hold.
3. To increase awareness of existing problems, investigate the possibility of having a feature on the subject at Fysikums retreat. *Outcome:* The retreat took place during the fall of 2020 as an online event. Part of it was devoted a balanced recruitment and unconscious biases.
4. Half day seminar for PhD students. *Outcome:* Not been done and is left as a measure for 2021.
5. Investigate the possibility to present the work by the equal rights and opportunities committee at the collegium. *Outcome:* Has been done.
6. Investigate the recruitment procedures at Fysikum from a gender perspective. *Outcome:* A first discussion along these lines was done at the Fysikum retreat.
7. Continue the analysis regarding the allocated teaching among PhD students. It turns out that female PhD's tend to teach less than males, and especially on higher master courses. *Outcome:* Been in contact with the person responsible for this survey and have invited him to present the results on one of the meetings of the committee.

3.3.2. Routine measures 2020

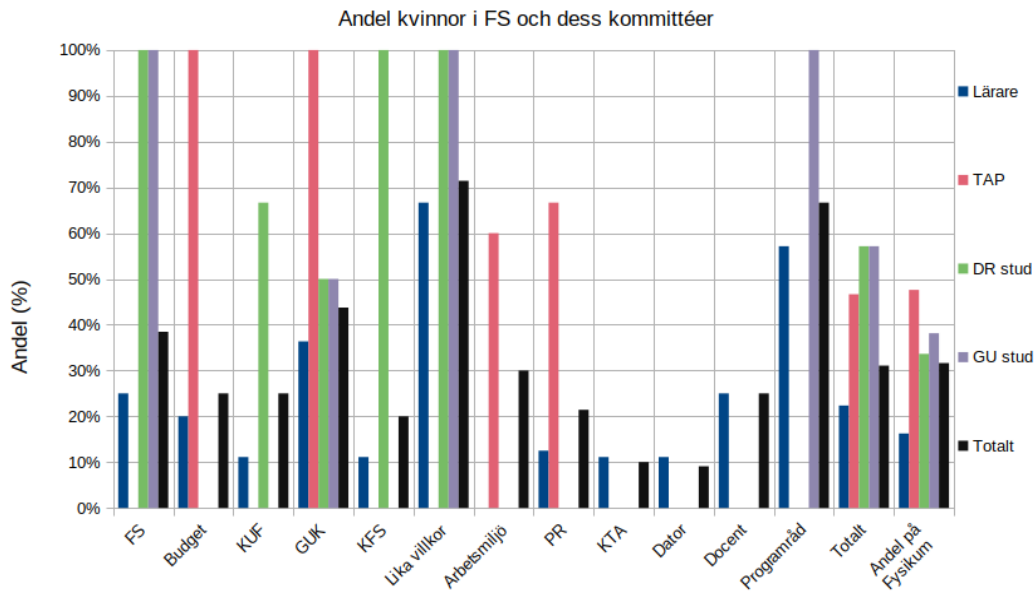
1. All assistants must be informed about the relationship with the students. The information must be provided at the beginning of each academic year and is mandatory for new PhD students with assistant positions. *Outcome:* Implemented.
2. The PhD representative shall present the work of the committee for Equal Rights and Opportunities at the autumn and spring meetings of the PhD council. *Outcome:* Implemented during the spring meeting.
3. 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:* New students and second-year students have been informed.
4. In March or April, the Faculty meeting will be informed about this year's Plan for Equal Rights and Opportunities and about Fysikum's Action plan against sexual harassment. *Outcome:* Implemented.
5. Technical and administrative staff shall be informed about the Plan for Equal Rights and Opportunities and the Action plan against sexual harassment. *Outcome:* Not been done, but is planned for the fall.
6. At least one seminar on gender equality /equality shall be arranged each year, possibly in collaboration with OKC. *Outcome:* Implemented.
7. All new required reading is examined from a gender equality perspective. *Outcome:* Implemented.
8. Encourage the Colloquium Committee at AlbaNova to maintain an equal gender distribution among colloquium speakers. *Outcome:* Completed. Of a total of 23 colloquium speakers in 2019, 19 were men (83%) and 4 were women (17%), which is somewhat lower proportion of female speakers compared to the figures of 2019. Is well below the target of a minimum of 40% female speakers.
9. 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:* Completed.
10. The survey "Study environment and harassment" is conducted during the spring semester for first-year students. *Outcome:* Not done, partly due to Corona.
11. Complete the PhD student survey every third year. *Outcome:* To be done in 2021.

4. Appendix: Statistical data

The



figures are updated every second year, last updated in 2020.



4.1. Personel

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.

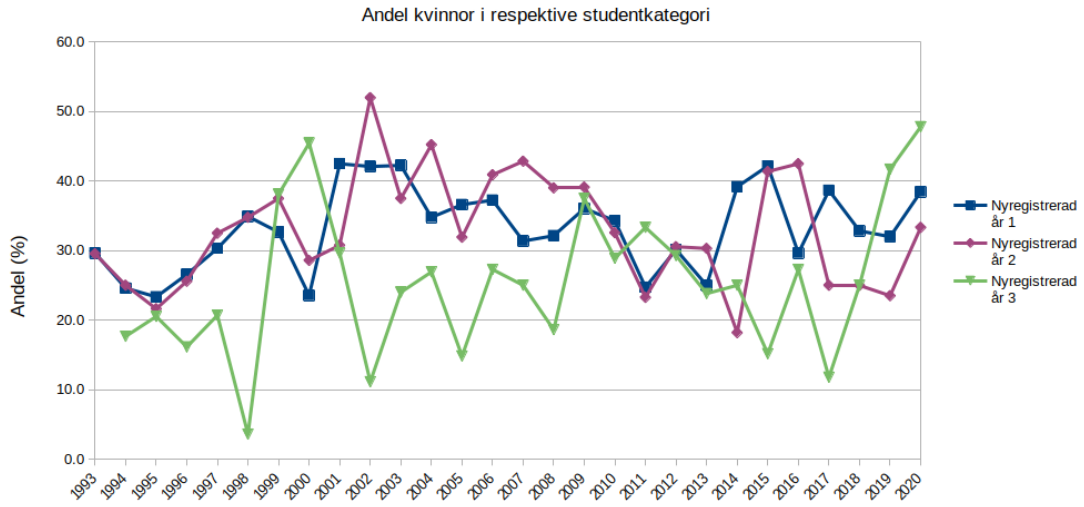


Figure 4: Newly registered for different grades.

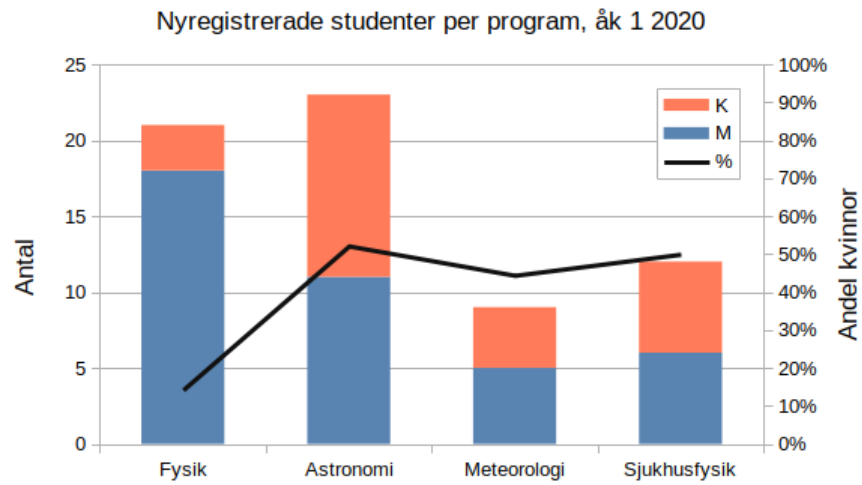


Figure 5: Students at the different programs, first year.

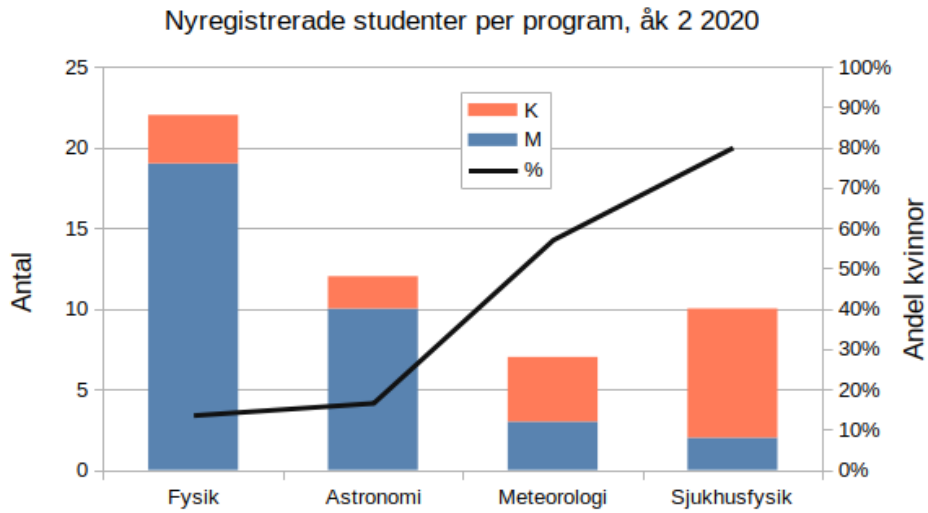


Figure 6: Students at the different programs, second grade.

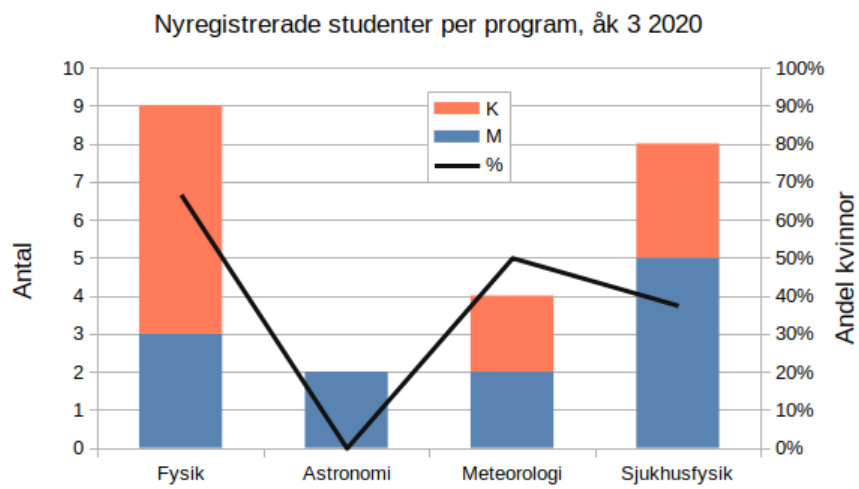


Figure 7: Students at the different programs, third-year.