Joint Student-Faculty Commiteee

2026 Annual report

(Academic Year: 2024/2025)

This document represents the Annual Report of the Joint Student–Faculty Committee, in accordance with the Guidelines for Quality Policies of SISSA. The Committee, defined by Article 13 of the School's Statute, is composed of Prof. Alessia Soldano, faculty member of the Neuroscience Area and appointed as Coordinator; Prof. Nicolò Sibilla, faculty member of the Mathematics Area; Prof. Massimo Capone, faculty member of the Physics Area; Amisha Aparupa, student representative of the Neuroscience Area; Michele Motta, student representative of the Mathematics Area; and Debarshi Banerjee, student representative of the Physics Area.

Methodological note

The main task of the Committee is to compile every year, a report describing the results of the analysis of questionnaires administered to PhD students and collected anonymously, to understand the current situation of the educational offer and the students' opinions on various aspects of their academic, working, and social life at SISSA. In particular, the Committee verifies and indicates the presence of any specific issues identified within the individual PhD programs.

The analysis of the questionnaires reveals, in line with previous years, an overall **positive situation** with a generally high level of student satisfaction. As in previous years, the Committee has decided to use this report to identify **critical issues** rather than to highlight positive aspects, since the latter do not provide useful information for improving the School's educational offer and student well-being. The report is divided into two parts: in the first part the general critical issues are discussed; the second part of the report focuses on the discussion of issues related to individual PhD programs. In this case, regarding the issues already highlighted in last year's report, the consequences of the initiatives undertaken by the different PhD programs to address them will be evaluated. In cases where the Committee considered

it appropriate to propose strategies to address these problems, the proposals are **highlighted in italics**.

A detailed analysis of the responses showed that many of the problems and issues **affect all PhD programs similarly**; however, in some cases the issues are more significant in certain PhD programs. To select the questions for which it is useful to discuss statistics disaggregated by PhD program, we calculated the *normalized mutual information (NMI)* between the responses and the corresponding PhD program (en.wikipedia.org/wiki/Mutual_information). The **NMI** is equal to 1 if the responses are completely different across the various PhD programs, and equal to 0 if the distribution of responses is the same in every PhD program. Given the small number of students in each PhD program, it is possible to observe high NMI values also due to random fluctuations. To account for this effect, we therefore calculated the **statistical significance** of the observed NMI, quantified by the so-called Z-score, *i.e.*, the difference between the observed NMI and the most probable one, measured in units of standard deviation. The Committee decided that when the Z-score exceeds 1.5 for certain topics that significantly impact the quality of the educational offer and student satisfaction, it was useful to present the **data disaggregated by PhD program.**

ANALYSIS OF THE CRITICAL ISSUES IN THE EDUCATIONAL OFFER

Questionnaire participation

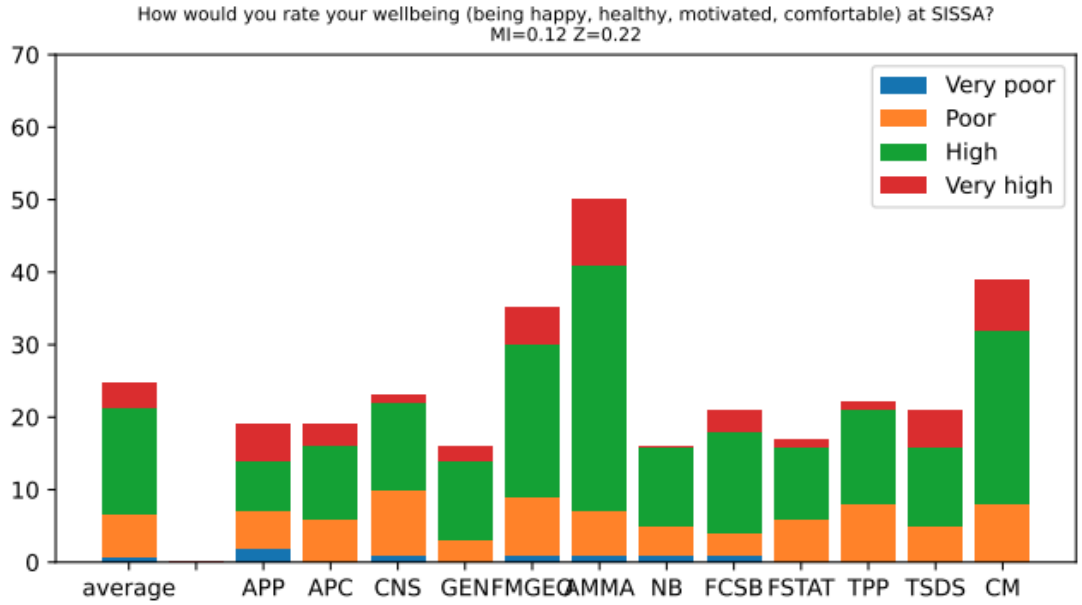
This is the second year in which the completion of the questionnaire is mandatory in order to enroll in the following academic year. Out of **314 questionnaires sent**, **307 responses** were received, with a response rate of nearly 98%. The Committee considers this to be very positive for obtaining meaningful information. As in the previous year, it is possible to access the questionnaire but not proceed beyond the first page, with the possibility to explain this decision. Only 9 students chose this option. From the comments, it appears that the decision not to continue derives from a perceived risk of a “lack of anonymity.” The Committee believes it is important to communicate to students that the members of the Committee receive the results in an

anonymized and randomized form, precisely in order to avoid any risk of loss of anonymity. The number of students who completed the questionnaire is therefore **298 out of 314**, corresponding to **95%**, in line with the previous year. Obtaining these numbers is very important, as they make it possible to obtain a more comprehensive overview of the School than was possible in previous years. The proportion of students who indicated a year of enrollment inconsistent with the information reported in the system is approximately 6%, again in line with the previous year. It is also be observed that, by verifying the total number of respondents by year of PhD and comparing it with the questionnaires sent to each PhD program, it is possible to identify errors in the completion of the field where it is indicated the respondent's PhD program. This year, no inconsistencies were identified. The Committee considers that, with the current implementation, the data collection is very comprehensive and does not deem further modifications to the questionnaire administration procedure to be necessary.

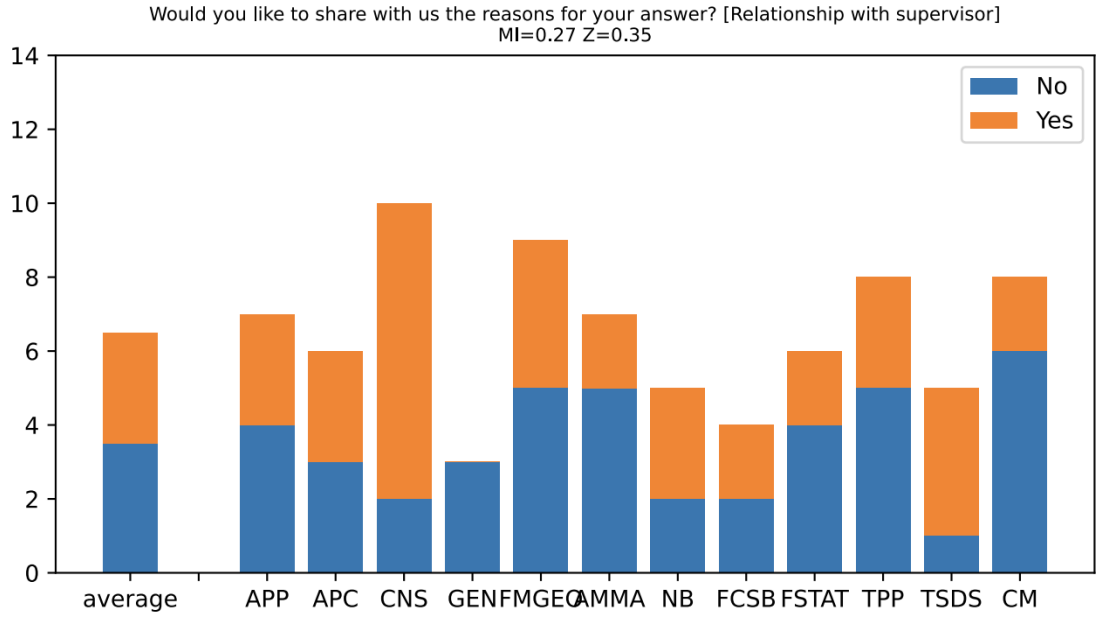
Based on the positive results observed in the previous year, it is recommended that, after the publication of this report, PhD coordinators organize a meeting with students to discuss any critical issues that may have emerged and the ways to address them. The Committee believes that this action would help not only to promote the resolution of potential issues, but also to increase students' awareness that their feedback is carefully evaluated and taken seriously, and of the analytical work carried out following the completion of the questionnaires.

Student's wellbeing

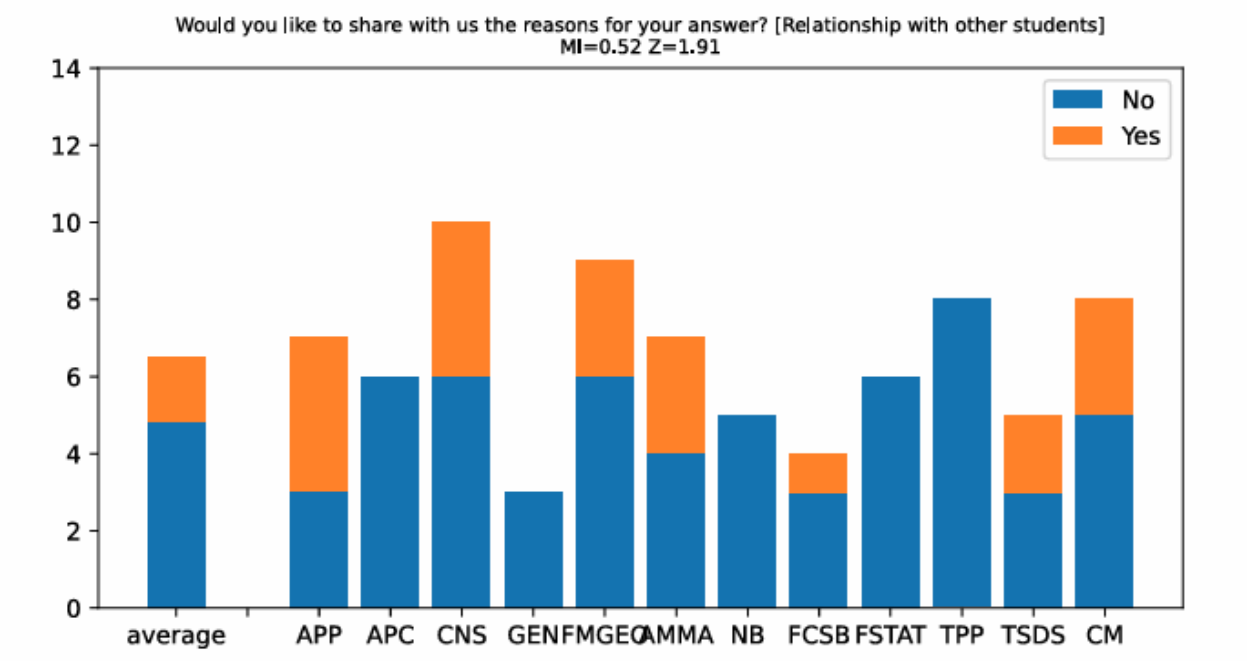
The results concerning the wellbeing show a slight improvement compared to last year. Wellbeing is rated as **low by 24% of students** (slightly increased compared to 20% in the previous year and in line with two years ago) and as **very low by 2.3% of students** (slightly decreased compared to the previous year). Differences between the PhD programs in this question are not significant (Z-score = 0.27), but it is observed that in some PhD programs the fraction of "low level" is around 35–39%.



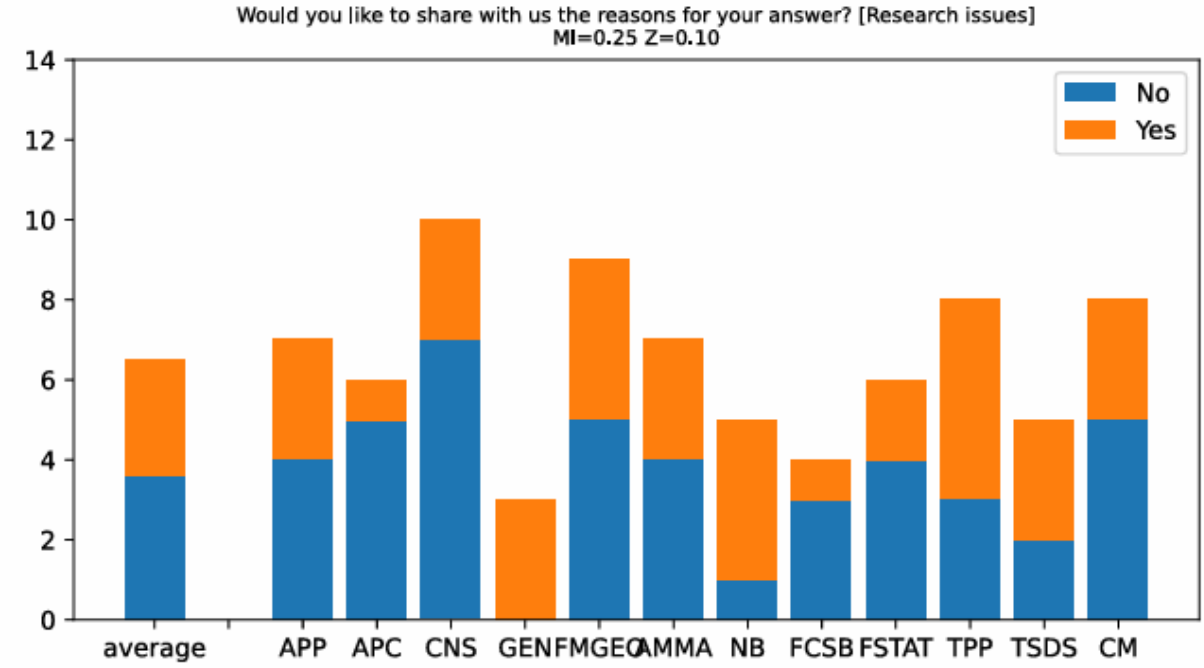
Some students provided an explanation in the open-ended comments: in some of these cases, the reason is related to relationships with colleagues, their own research project and stress/ phycological problems Additionally, this year some questions were introduced to better clarify the responses regarding well-being.



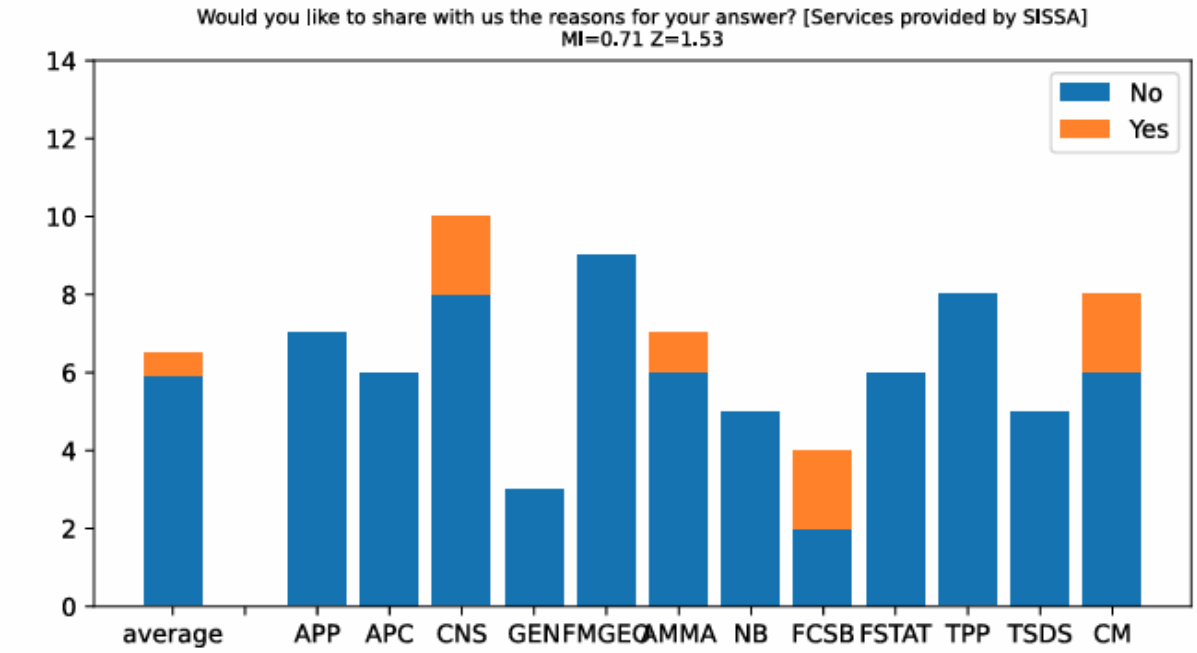
The relationship with the supervisor appears to be the main factor related to well-being in all PhD programs except one.



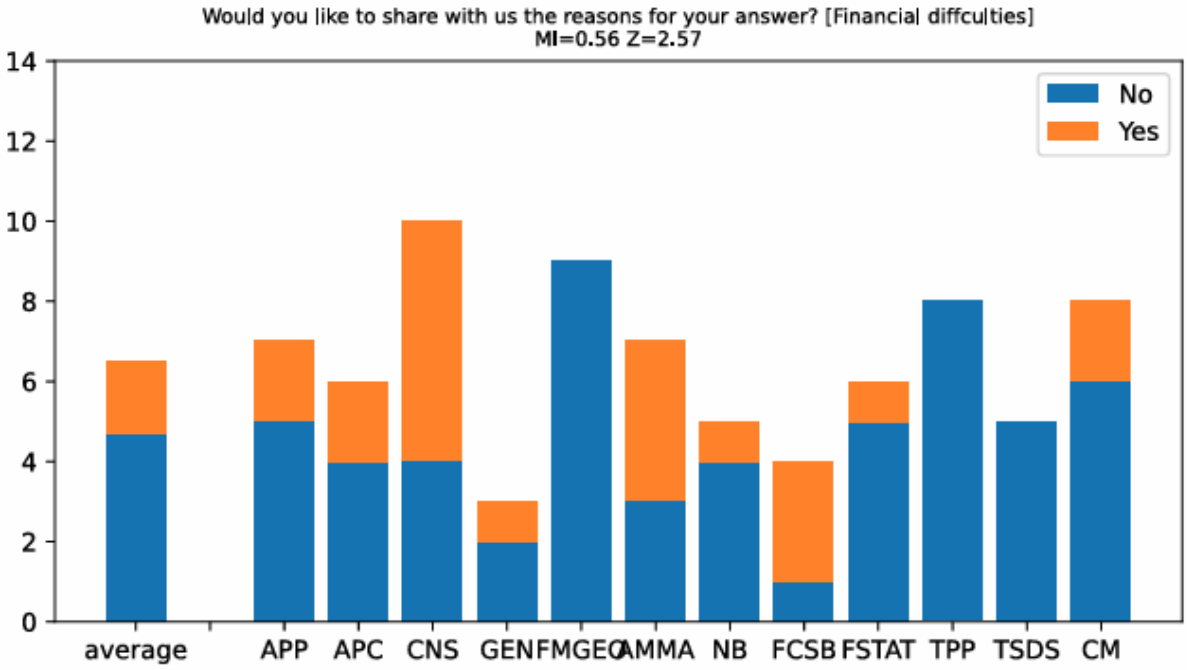
The relationship with other students appears to be involved in well-being, but with a different impact depending on the PhD (z-score greater than 1.5), as do the issues related to the research conducted at SISSA, which, however, are distributed relatively uniformly across the PhD programs.



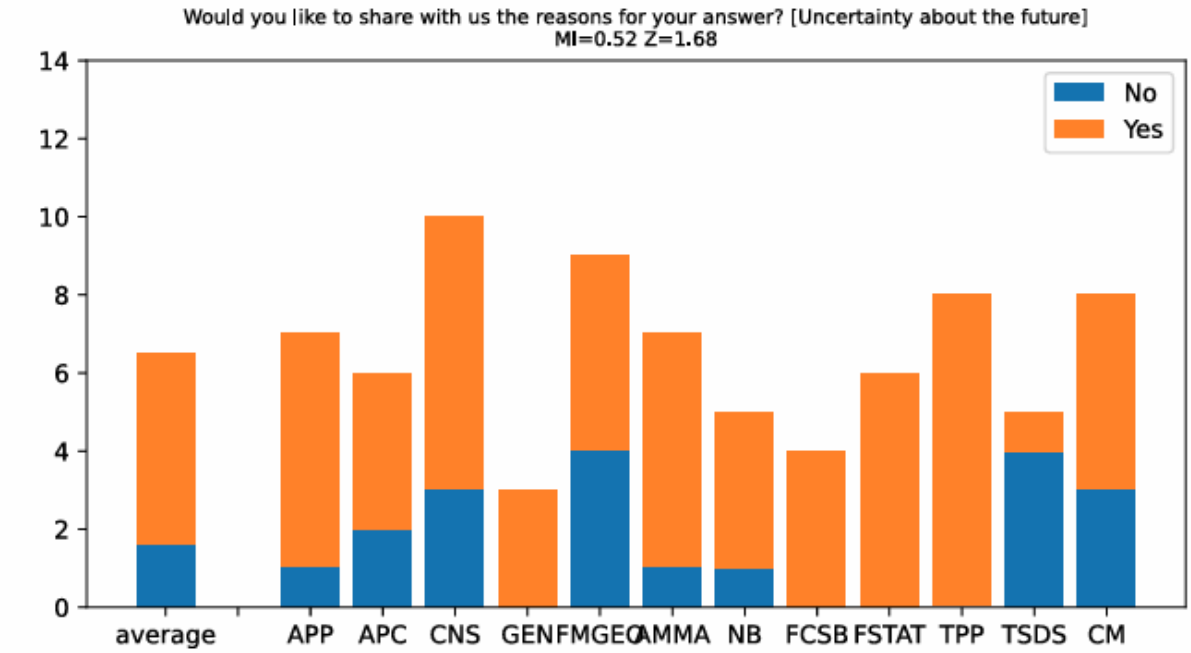
It clearly emerges that the services provided by SISSA are relatively little involved in students' well-being, and only for a limited number of PhD programs.



Financial difficulties represent a significant proportion in 9 out of 12 PhD programs, with notable differences across the various programs (z = 2.57).



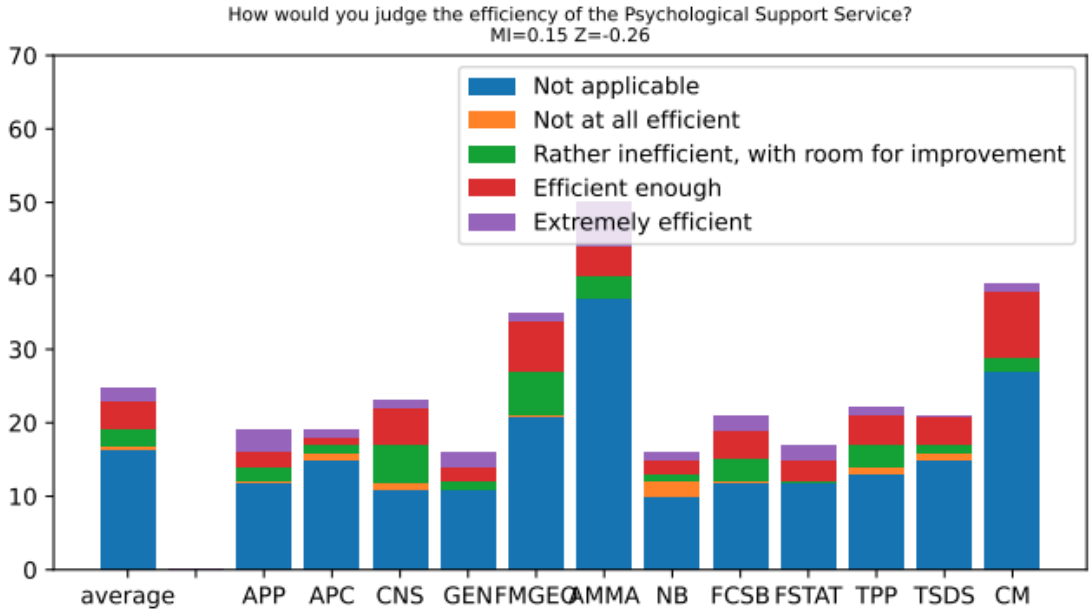
Finally, uncertainty about the future emerges as the factor most strongly felt by students in relation to their well-being, with 4 PhD courses that reach 100% of the responses.



The committee believes that this figure should be monitored, as the percentage of students reporting low well-being remains high and does not appear to have changed significantly in recent years, despite the various strategies that have been implemented. The widespread perception that the relationship with one's supervisor is the main factor contributing to well-being leads us to suggest increasing opportunities for meetings and exchanges between supervisors and students, and promoting constructive dialogue, as well as access to the many support services offered by SISSA. The strong relevance of uncertainty about the future, in relation to well-being, makes it more challenging to propose effective strategies. The committee suggests promoting opportunities for interaction between PhD students, postdocs, and scientists working in both academic and industrial settings, in order to provide real examples of possible future career paths in science.

Psychological support

The psychological support service was evaluated by just over one third of the responding students, in line with the previous year. About 6% of the students who evaluated the service consider it unsatisfactory, a slight decrease compared to last year (7%), while 27% believe it is partially inefficient and has room for improvement, a slight increase compared to last year (23%).

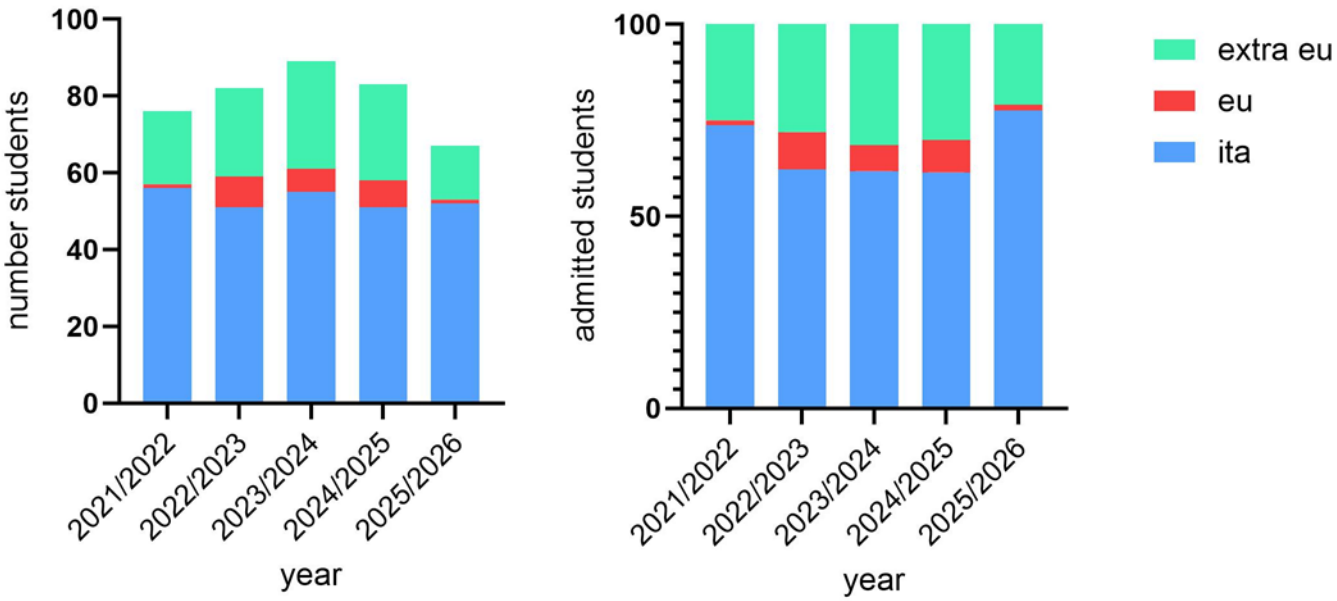


Free comments are numerous, and there are several positive evaluations. On the other hand, as in the previous year, other comments describe the service as insufficient due to the limited availability of psychologists, difficulties in obtaining appointments, or long waiting times to receive a reply to emails. In general, the issues mentioned most frequently concern the number and responsiveness of therapists, both considered insufficient.

Considering that this report refers to the 2024–2025 academic year and that, during the past academic year (2025–2026), the number of hours of individual counseling services was increased, the Committee recommends monitoring how this response evolves in the next academic year.

Level of Internationalization and Respect for Diversity

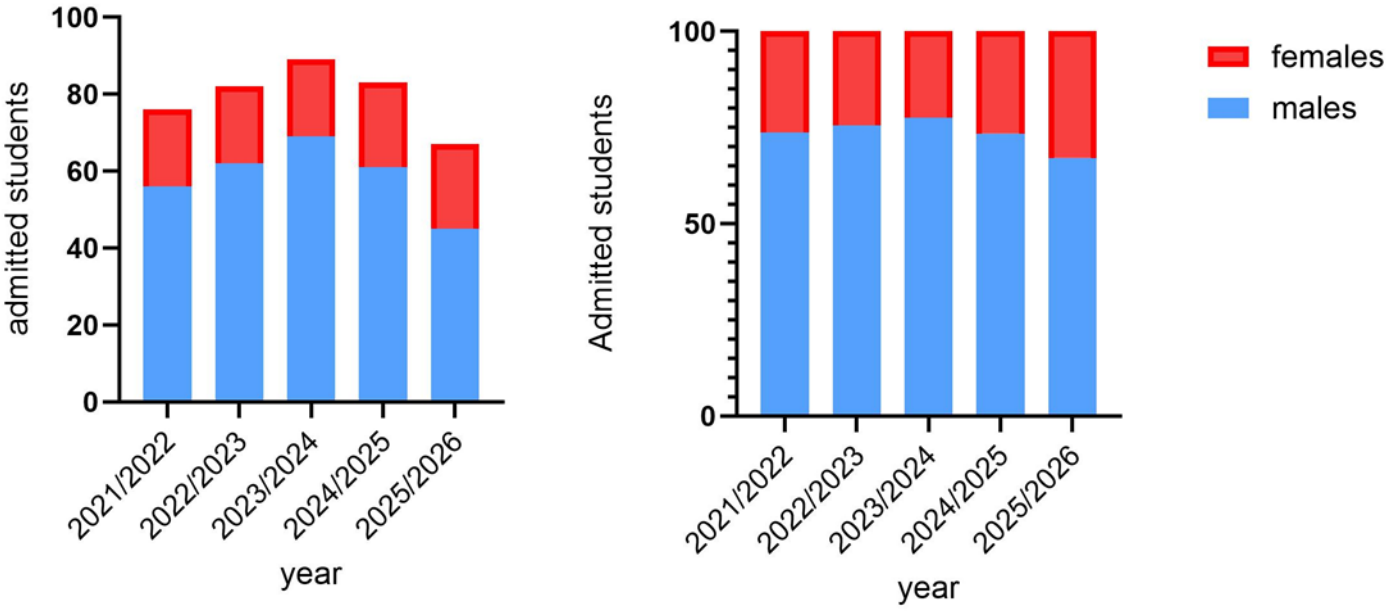
The level of internationalization remains moderate. Among the **admitted** candidates in the last year (2025/20256), 78% are Italians, 1.5% are EU citizens (non-Italian), and 21% are non-EU citizens, with an increase in Italian winners compared to the previous academic year. The two tables show, respectively, the number of admitted students out of the total and the percentage of admitted students out of the total.



These percentages are instead 26%, 8%, and 66% when considering all **applicants**, indicating that the success rate in the admission exam is significantly higher for Italian and EU applicants than for non-EU applicants.

The fraction of admitted male and female students is also reported below. Last year, the fraction of admitted female students increased to 33%, compared to 26.5% in the previous year. When considering all applicants, the fraction of female candidates is 29%, in line with last year, suggesting

that the success rate in the admission exam is essentially independent of gender.



Discriminations

The percentage of students reporting that they have been subject to discrimination is around 4.7%, in slight decrease compared to last year and in line with previous years. The number of students who provided explanations in the open responses is very limited. Instances of gender, religious, or origin-based discrimination are mentioned. Some comments suggest that students perceive a lack of concrete actions to address the issue of discrimination, despite it being raised every year. Students who report having witnessed cases of discrimination (around 4%) highlight similar issues, mainly discrimination toward foreign students/language-related discrimination and gender discrimination.

Although these percentages are relatively low, they are still relevant, and the Committee is concerned by the lack of clear improvement over the past few years. As in the past, the Committee recommends that the utmost attention is paid to preventing any form of discrimination and discouraging behaviors that hinder the integration of international students. Promoting the use of English, both in formal and informal contexts where compatible with

regulations, remains essential as also make sure that all classes and academic discussion are in English.

Poor Awareness of Available Services

The issues related to the limited awareness of services, which had already been reported in the previous year, appear to persist, although most indicators show a slight improvement. In particular, the services known by less than 50% of students are: the university sports center (31% vs 25% last year), medical assistance and daycare (50% vs 42% last year), the CUG service (42%, vs 45% last year), the ombudsperson (48% vs 50% the previous year), and technology transfer services (26% vs 24%). We recommend continuing to monitor these indicators and to keep implementing communication strategies to clearly illustrate the structure of the wellbeing support network at SISSA.

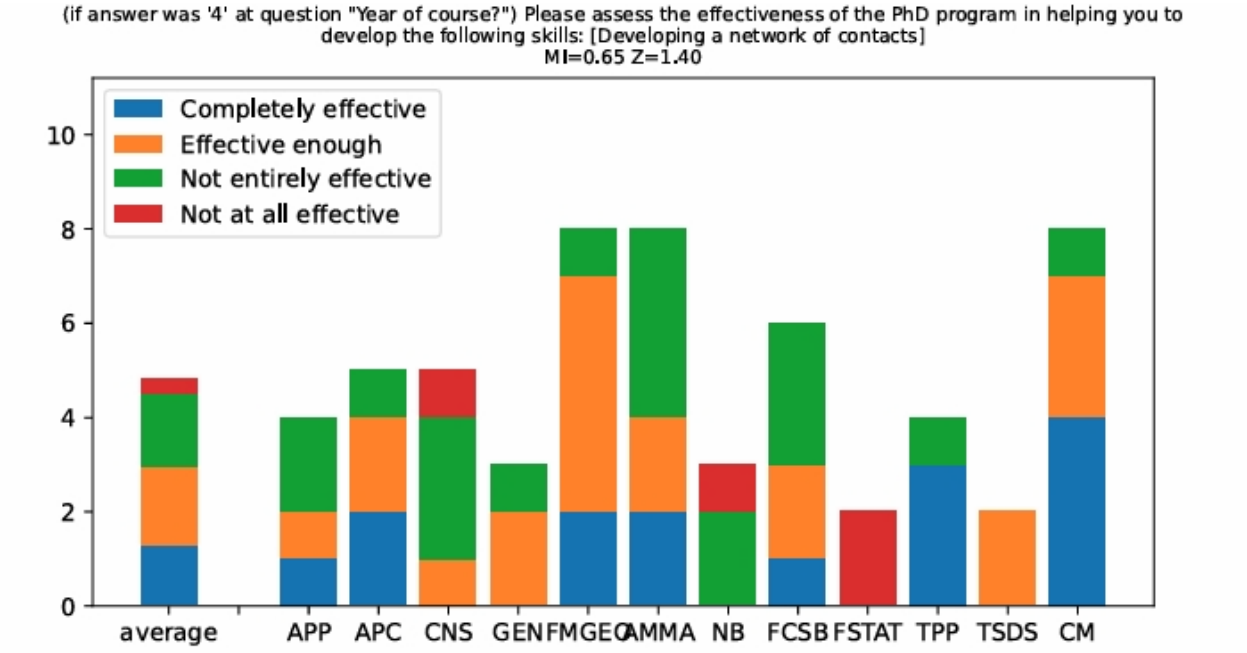
A very low level of awareness is also observed regarding student representation within SISSA's governing bodies. For the various bodies, the fraction of students who report being sufficiently or very well-informed ranges between 19% and 30%. The only exception is the awareness of student representation within the respective Area Councils, which is around 44%. These results are fairly uniform across all PhD programs. The numbers are in line with the previous year and are considered concerning by the Committee. In the open comments, some students report a lack of information, in contrast with what is reported by the student representatives, who state that information is disseminated at various points and in various way during the academic year. The Committee therefore once again urges student representatives to involve the broader student body more actively.

Scientific environment and Networking

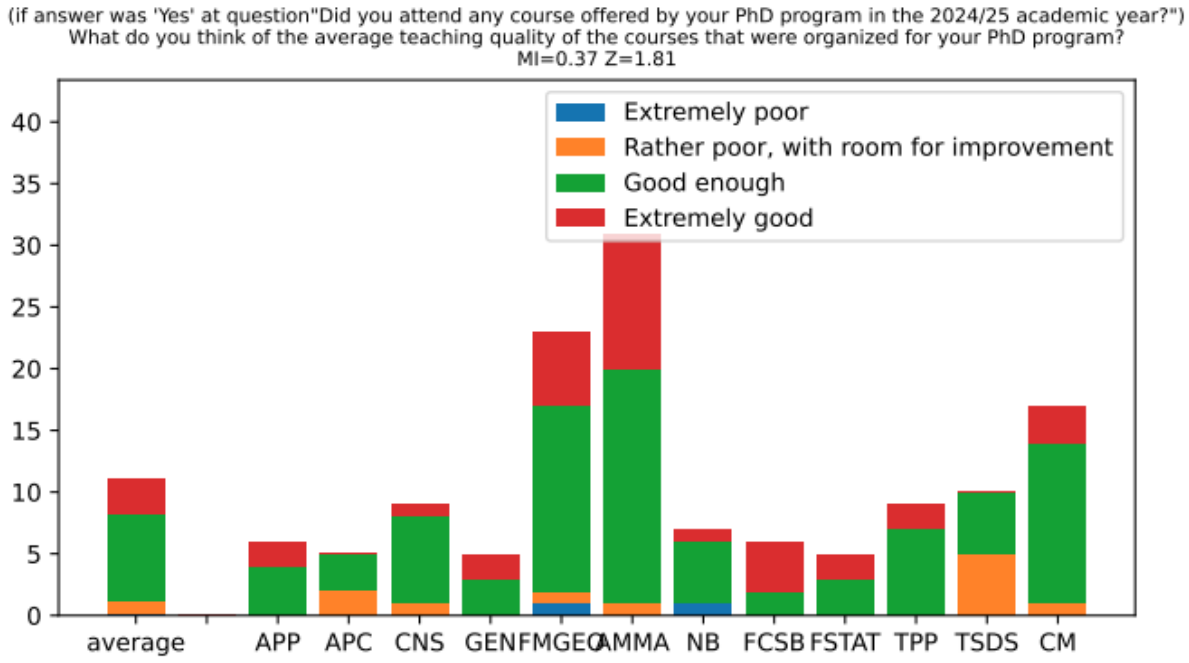
Knowledge of the activities of other groups within the same Area and of groups from other Areas shows an improvement compared to the previous year. About 60% of respondents declare to be fairly/very well informed about the activities of groups within their **own Area**, while 18% regarding groups from **other Areas**.

The proportion of students who reported the PhD as ineffective or not entirely effective in developing a network stands at around 40%, a slight increase compared to last year (37%). The number of respondents is low, as this

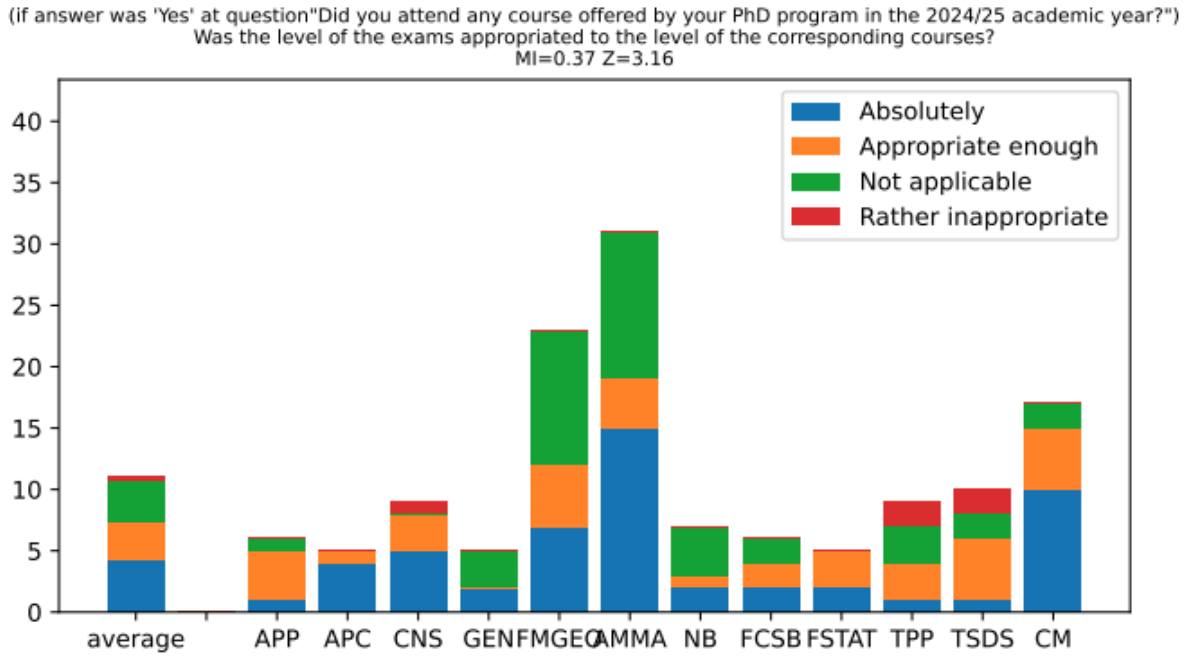
question is asked only to final-year students, suggesting that the statistical error may be significant. Indeed, although the z-score is below 1.5, in some PhD programs the percentage of students who are not fully satisfied or dissatisfied is predominant.



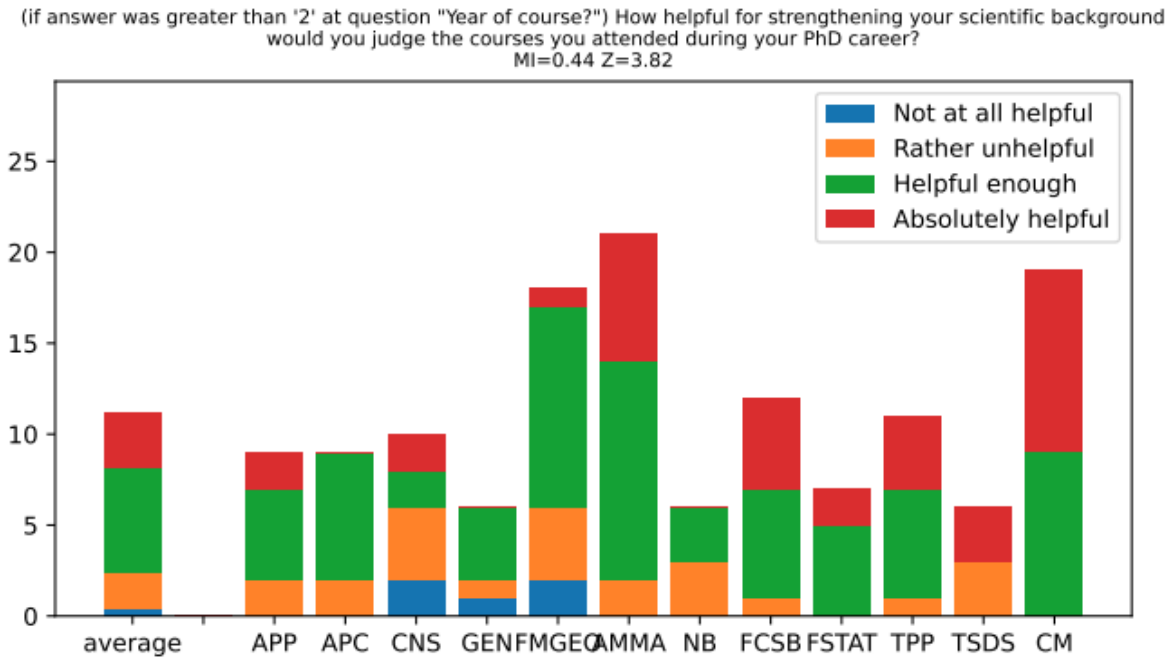
Educational offering



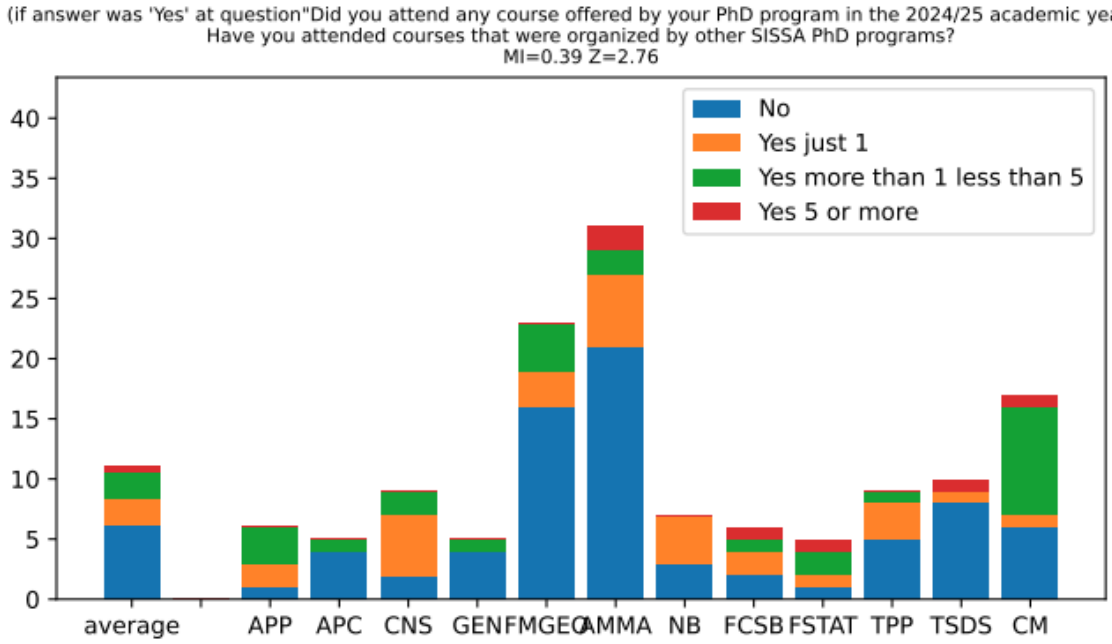
The quality of the teaching is considered high or very high by a large percentage of students, showing an increase compared to the previous year (90% versus 87%). The disparities observed in previous years continue the trend of reduction (Z = 1.81). There are also differences in the perceived difficulty of exams, which has decreased compared to the previous year (Z= 3.16).



The percentage of third- and fourth-year students who consider the courses they have taken useful for strengthening their scientific background is in line with last year (79% of students rated them as good or excellent, compared to 81%). However, the result is significantly dependent on the specific PhD program.



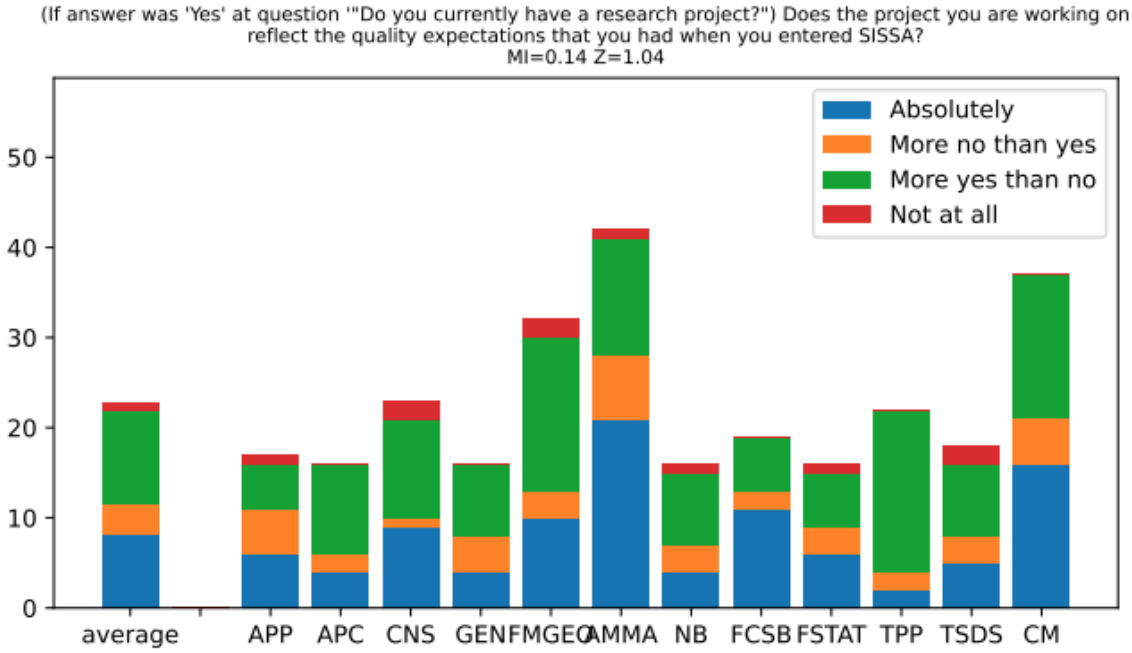
Student participation in courses organized by other PhD programs has slightly increased compared to the previous year (45%), with significant differences between the PhD programs (Z = 2.76).



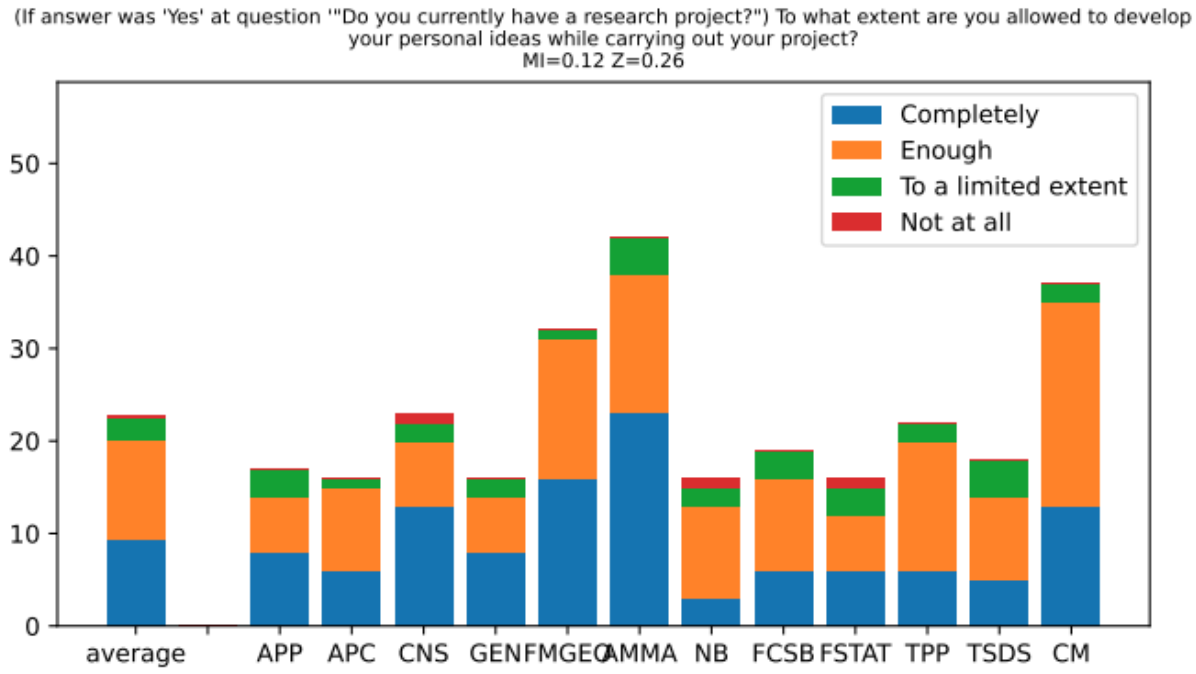
Quality of supervision and Career Prospects

Regarding the question on the alignment between the quality of the research project and students' expectations upon arriving at SISSA, the fraction of

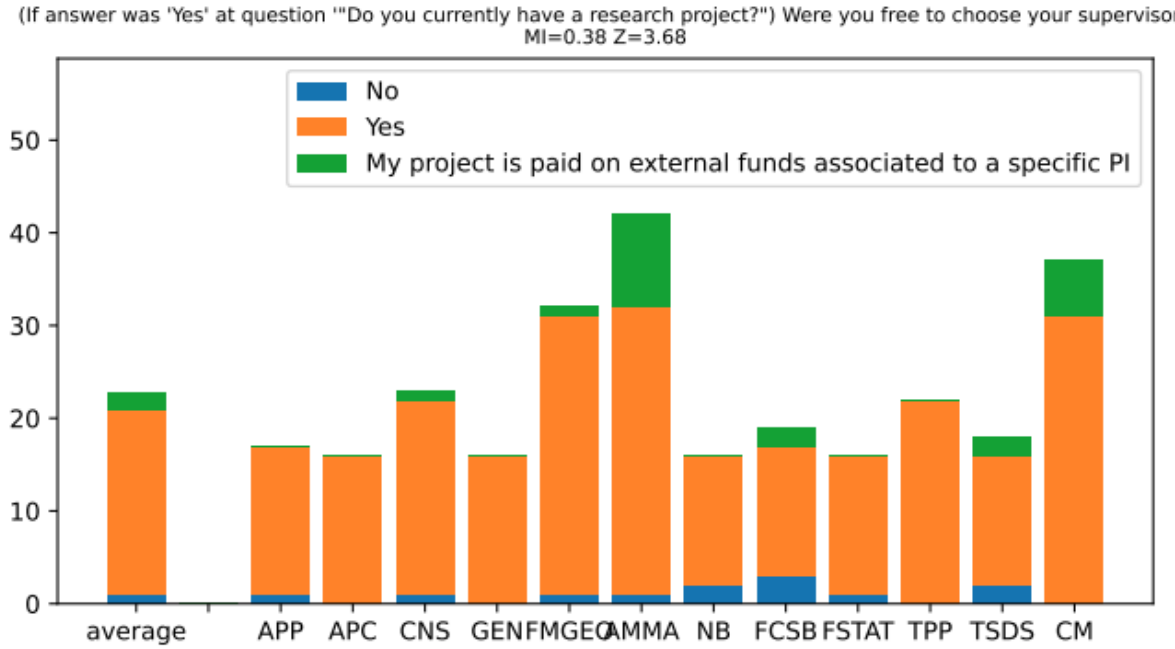
satisfied students has slightly decreased compared to the previous year (82% versus 85%).



77% of students report having been able to make an informed choice of their research project, a decrease compared to last year (81%). However, this reaches 80% when excluding students who selected “not applicable.” Additionally, 88% report being able to pursue their own ideas independently, with no significant differences across PhD programs.

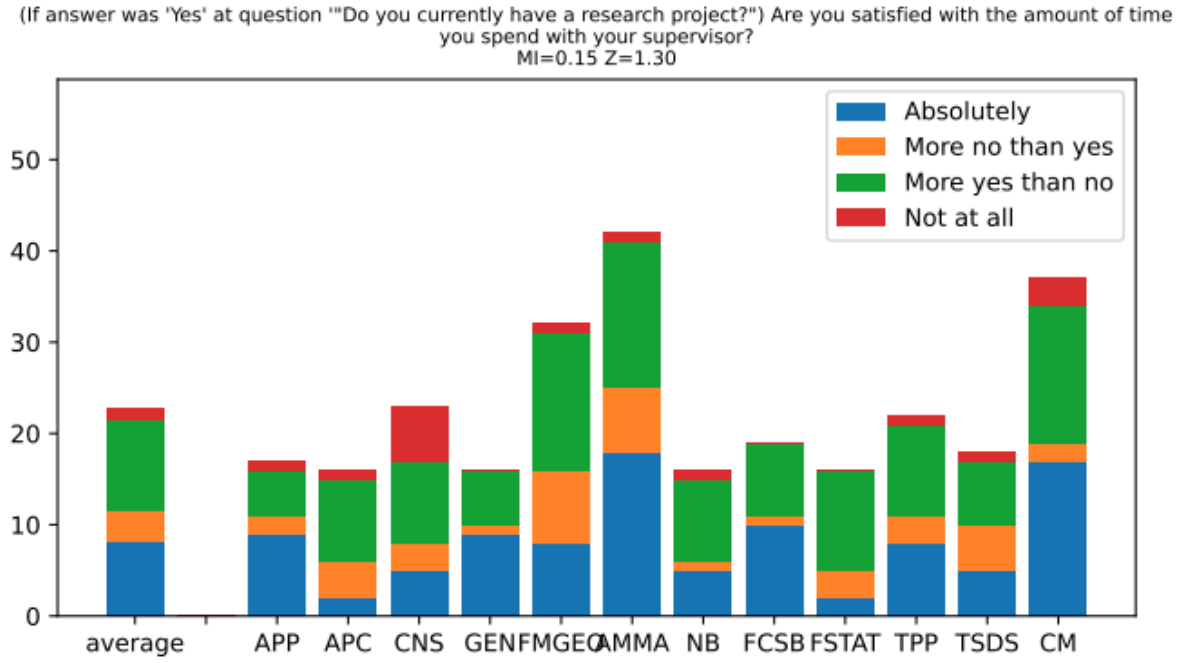


The vast majority of students had the opportunity to choose their supervisor. Responses to this question are dependent on the specific PhD program (Z = 3.68).



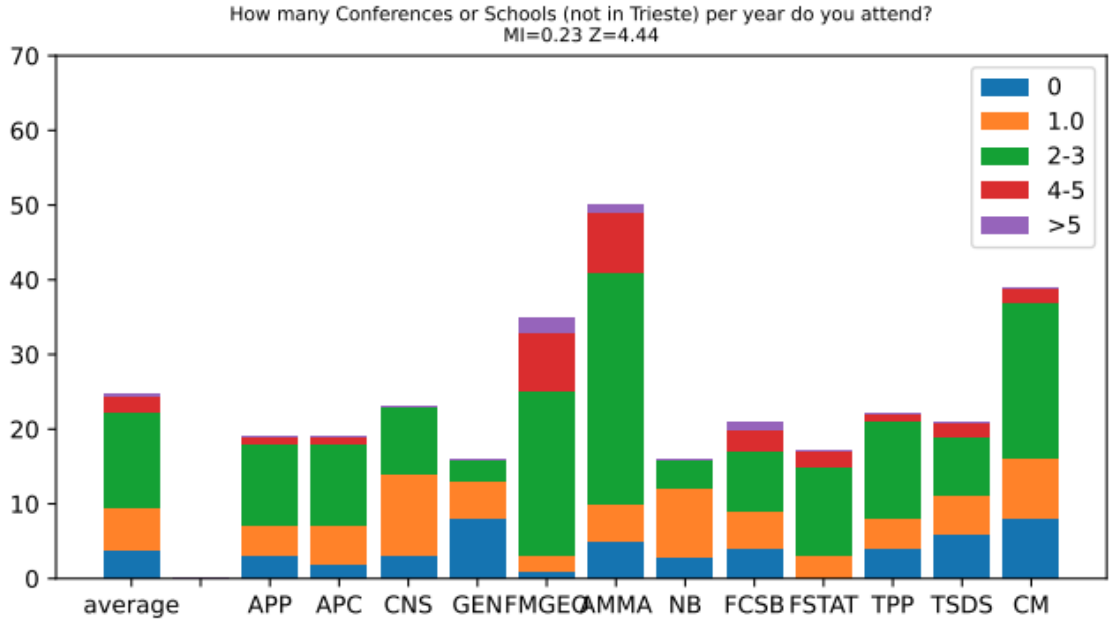
Overall, students are satisfied with the time spent with their supervisor (79.5%) and with their availability (82%), although both values show a slight decrease compared to last year (83% and 87%, respectively), with some

differences between PhD programs. Although not statistically significant, the z-score has increased compared to last year; therefore, the Committee recommends continuing to monitor this aspect in the coming years.



The majority of students intend to pursue an academic career (65%). The Committee plans to continue monitoring this statistic in future reports. Most of the remaining students still plan to engage in research and development activities in the private sector.

Conferences participation

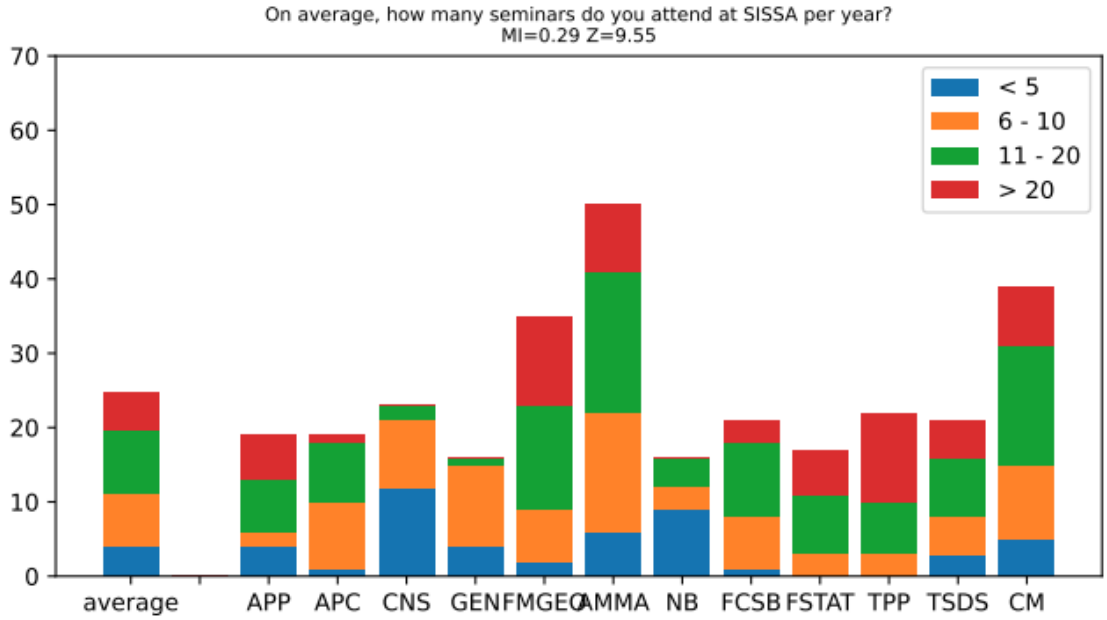


The analysis of the number of conference participations per year was conducted excluding all first-year students, in order to account for the fact that first-year students, having a high course workload, tend to attend fewer conferences. Participation differs significantly among the various PhD programs (Z = 4.44).

An analysis of the free comments shows that a significant fraction of students attends few conferences due to insufficient funding. Some students also note that priority is given to experiments over conference participation, or that the lack of results to present is a limiting factor. The Committee believes that allowing students to attend at least one trip per academic year is essential, and that the school should consider the effect of inflation on the funds allocated to students for travel expenses. Only 2 fourth-year students reported having attended zero conferences.

As in the previous year, the Committee notes that the way the question is phrased does not make it clear whether it refers to the last year or the average of previous years. Finally, it is noted that a possible solution to access this information while avoiding potential reporting errors could be to reconstruct it based on the data available in the travel management system.

Seminars participation



The number of students attending fewer than five seminars in a year is in line with the previous questionnaire (16%). On the other hand, as last year, these students remain unevenly distributed across the various PhD programs (Z = 9.55). As shown in the figure, in some PhD programs a particularly high fraction of students reports attending fewer than five seminars per year. Based on the data reported in the individual PhD reports, it appears that even in programs where this percentage is high, a substantial number of seminars have been organized. The Committee therefore recommends not only continuing to organize a consistent number of seminars, but also encouraging students to attend seminars organized both by their own PhD program and by scientifically related programs. Furthermore, in cases where this is not already happening, it is suggested that students be involved in the organization of seminars and that they be encouraged to propose potential speakers of interest to the student community. Finally, the Committee suggests that steps be taken to improve the visibility of seminar announcements, for example by posting them on the SISSA homepage.

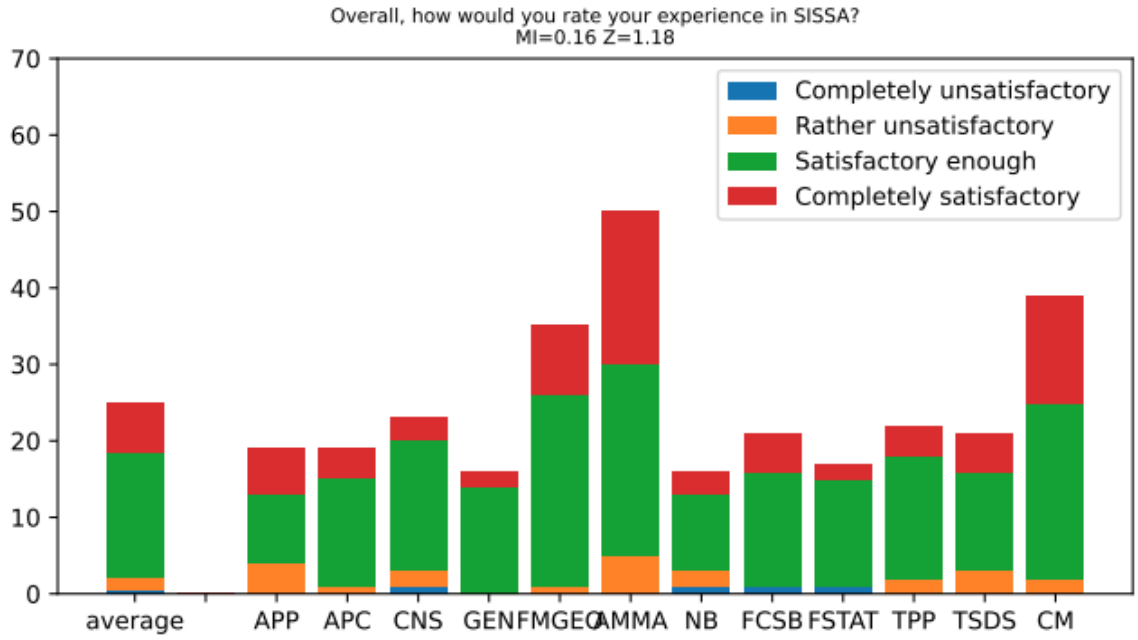
Colloquia

The appreciation of the Colloquia has increased compared to last year: 77% of students who expressed an opinion consider that they provide adequate

interdisciplinary stimuli (compared to 65% of last year). Moreover, also the number of students who expressed an opinion has slightly increased (63% versus 60%), suggesting a higher participation. The Committee views this improvement positively and considers it important to monitor this indicator in the coming years.

Overall satisfaction

Overall, 91% of students are satisfied or very satisfied with their experience at SISSA, in line with the previous year (90%). Unlike last year, the results are independent of the specific PhD program (Z = 1.18), as shown in the figure below. The Committee views this change positively, as it reflects the effectiveness of the measures implemented over the past year.



The following sections analyze the three different Areas of the School and the individual PhD programs within them, using the same methodological approach aimed solely at identifying areas of concern.

Physics Area

ASTROPARTICLE PHYSICS

Specific issues: The situation regarding student well-being, which had been reported as critical last year, appears to be improving: the percentage of respondents indicating a low or very low level of well-being has decreased from about 50% to 36%. Responses concerning course logistics are generally positive, indicating a clear improvement compared to the previous year. As for satisfaction with their own research activity, it should be noted that about 35% of respondents consider the quality of their project to be below expectations; this is higher than the average for other PhD programs. One issue raised in the open comments section concerns the response of the SISSA community to the situation in Palestine, which was judged to be insufficient.

Corrective measures: *The Committee positively evaluates the initiatives undertaken by the faculty to improve the logistical aspects of the educational offering, which is reflected in a much higher level of satisfaction. With regard to satisfaction with their own research project, the committee encourages the PhD faculty to strengthen dialogue with students in order to understand the reasons for this dissatisfaction, and to arrive at a project assignment that is more fully shared with the students themselves in the future.*

ASTROPHYSICS AND COSMOLOGY

Specific issues: From the point of view of the logistic, the improvements implemented in previous years in the organization of courses continue to be effective, and the majority of respondents report being satisfied with them. It should be noted that 40% of students report not being fully satisfied with the quality of the courses offered in the PhD program, a value higher than in other PhD programs. One respondent indicates the lack of advanced courses as the reason for their dissatisfaction. There is still a significant fraction of respondents, about 31%, that believes that the time devoted to them by their advisor is not sufficient.

Corrective measures: *We encourage the PhD faculty to make further efforts to improve communication with students regarding the educational*

offering, and to address the issue of the time that supervisors dedicate to students.

PHYSICS AND CHEMISTRY OF BIOLOGICAL SYSTEMS

Specific issues: In previous years, a problem had been identified regarding the freedom to choose the supervisor. Last year's report noted an improvement, which is further confirmed by this year's data. Of the 21 respondents, only 3 reported that they were not free to choose their supervisor (with a clear decrease from the value of 4 out of 18 that emerged two years ago). Although respondents largely report being satisfied with the acquisition of skills during the PhD, the results highlight a not entirely positive evaluation of the program's effectiveness in facilitating the creation of a network of contacts. 50% of respondents delcare not being fully satisfied in this regard, a number higher than the average for SISSA PhD programs.

Corrective measures: *The Committee encourages the PhD faculty and individual Pis to evaluate the possibility of strengthening contacts between PhD students, institutions and researchers outside SISSA.*

STATISTICAL PHYSICS

Specific issues: The value related to student well-being was carefully monitored in previous iterations of the report. In this year's questionnaire a marked improvement is observed. The number of students reporting low/very low well-being has decreased to 35%, compared with 50% last year. Elements of dissatisfaction remain, emerging from some questions regarding the scientific path of the PhD and from the open comments, but they are difficult to interpret. 25% of responding students report that they never receive feedback from their supervisor. This is in contrast with the fact that only 3 out of 16 students state that they are more dissatisfied than satisfied with the time they spend with their supervisor. A negative evaluation is also given to the effectiveness of the PhD program in helping respondents develop specific skills (critical thinking/independence, technical skills, knowledge of the literature); a negative judgment is expressed regarding the question related to the creation of a network of contacts. A negative evaluation is also given to the assistance received in finding a position after

the PhD. From the analysis of the PhD program annual report, it appears that objective metrics (such as the high percentage of students securing post-doctoral positions) seem to contradict the perceptions emerging from the questionnaire regarding, for example, the effectiveness of the PhD in integrating students into a professional network. In addition, the number of respondents is low. The Committee therefore considers that this may not represent a genuine critical issue, but rather a statistical fluctuation, but will monitor the development of this aspect in the coming years.

Corrective measures: *Some of the issues identified had already emerged in previous reports. From an analysis of the PhD program annual report, it appears that measures have been implemented to foster dialogue and a better understanding of critical issues, which have often not led to the identification of clear problems. The improvement in well-being indicators suggests that the actions undertaken have had a positive effect. Inconsistencies between questionnaire results, for example regarding networking, and objective metrics make the interpretation of the findings difficult. The Committee nevertheless recommends strengthening dialogue with students, as was previously done in relation to well-being, in order to clarify these remaining points of dissatisfaction and to jointly consider possible solutions.*

THEORETICAL PARTICLE PHYSICS

Specific issues: No specific issues emerged from the questionnaire. In the coordinator's report it is highlighted that measures have been implemented to increase female representation, which appear to have produced positive effects.

THEORY AND NUMERICAL SIMULATION OF CONDENSED MATTER

Specific issues: In the previous year's report it was highlighted a low participation to seminars and a low female representation in the PhD. Student participation in seminars has increased compared to the previous year. With regard to female representation, among the students admitted in the current academic year, 2 out of 7 are female, an improvement compared to the previous year.

Corrective measures: *The coordinator's report indicates that efforts have been made within the PhD program to establish a regular seminar series and, based on the results obtained, this appears to have had a positive effect on seminar participation. It is recommended to continue monitoring the situation and to take measures to increase female representation.*

THEORETICAL AND SCIENTIFIC DATA SCIENCE

Specific issues: The most critical evaluations, both in the questionnaire responses and in the open comments, concern teaching. More specifically, 50% of respondents report dissatisfaction with the quality of the courses in the 2024/2025 academic year, and more than half evaluate as negative the logistics of the courses organization. Over 60% believe that the course offering is incomplete and does not adequately cover students' training needs. In the open comments, some students note that the first-year courses are mandatory, leaving no room to personalize the study plan—for example by taking relevant courses offered by other PhD programs (e.g. AMMA). A partly negative evaluation is also expressed by students in years following the first, among whom half of the respondents state that the courses they attended were not useful in strengthening their scientific background. Negative evaluations, in proportions higher than the SISSA average, are also expressed regarding the quality of the PhD project, the time devoted by the supervisor, and the amount of feedback received.

Corrective measures: *The PhD faculty is encouraged to promote meetings with students and to implement concrete solutions to alleviate these issues. One possibility could be to allow one or more courses external to the PhD program to be included in the study plan, subject to approval by the PhD faculty. We also invite PIs to be receptive to the need for greater interaction expressed by respondents, so that increased participation may also lead to greater satisfaction with their research project. The Committee notes, following discussion with the coordinator, that the PhD program is highly heterogeneous in scientific terms and that, consequently, the student body has a broad and diverse range of backgrounds and interests, making it particularly challenging to design a common curriculum that satisfies all students. The PhD faculty is nevertheless working with student representatives to develop actions aimed at improving the situation in the*

future; therefore, the Committee reserves the right to monitor the effects of these measures in the coming years.

Mathematics Area

MATHEMATICAL ANALYSIS, MODELLING & APPLICATIONS

Specific issues: 16% percent of respondents indicate that the logistics of the courses are not entirely satisfactory and could be improved. From the open comments it emerges that this is due to a lack of clarity in the timetable at the beginning of the year (delays in updating the website) and to a non-uniform distribution of courses throughout the academic year.

Corrective measures: *The Committee suggests to the faculty to verify and ensure clarity in the communication of the teaching schedule and to try to distribute the courses more evenly over the course of the academic year.*

GEOMETRY AND MATHEMATICAL PHYSICS

Specific issues: The evaluation of the quality of the teaching offer have improved compared to last year: only 2 out of 23 respondents consider the quality of teaching to be low, but 33% of students believe that the courses are not useful or only relatively useful in strengthening their scientific background. Regarding course logistics, the respondents who evaluate it negatively has decreased from 25% to 17%. As noted in the PhD coordinator's report, measures were taken on the basis of last year's questionnaire results to improve course logistics, and these appear to have had a positive effect.

Corrective measures: *In light of these positive results, the faculty is encouraged to continue working in the direction already undertaken to improve course logistics. The coordinator's report also highlights the introduction of new courses, taught both by external lecturers and by SISSA researchers. Given the still relatively high percentage of respondents who*

believe that the courses are not sufficiently useful for strengthening their scientific background, the Commitee suggest to the faculty to consider whether some adjustments to the teaching offer might be beneficial.

Neuroscience Area

COGNITIVE NEUROSCIENCES

Specific issues: The proportion of students reporting a low level of well-being reaches 43%, in contrast with the improvement observed last year. Among the reported reasons, in addition to financial difficulties and uncertainty about the future, the relationship with the supervisor appears to be predominant, and one comment refers to “high pressure and stress”.
The proportion of students who attended fewer than 5 seminars has increased to 52%, a significant rise compared to the already high value of 38% in the previous year. The annual report lists twenty-eight invited guests, 70% of whom gave a seminar, making the low attendance figures even more surprising.

Corrective measures: *The causes of the low level of well-being should be investigated, where possible, for example by promoting a meeting between the coordinator and student representatives. It is also suggested to ensure that students are adequately informed about the psychological support services offered by SISSA. The seminar situation appears difficult to interpret, but it is recommended to organize regular seminars with a reasonable balance among the different research topics within the group, involving students in the selection of topics and speakers.*

FUNCTIONAL AND STRUCTURAL GENOMICS;

Specific issues: Seminar participation is in line with the previous year, with the vast majority of students reporting attendance at 6–10 seminars, despite the report indicating only 4 seminars organized within the PhD program, suggesting that students attend seminars organized by other PhD program/areas.

Conference participation is lower than the school's average (36% of students beyond the first year did not attend any conference, and only 2 out of 11 students attended more than one). From the responses, the main reported reason appears to be a lack of time due to laboratory commitments.

Corrective measures*: It should be assessed whether the reduced participation in conferences represents a real issue or simply reflects a different role of conferences and a different level of commitment (i.e. laboratory workload) compared to other groups within the School. From discussions with student representatives, a suggestion has emerged—consistent with the free comments discussed in the introductory section—to increase the funds allocated for conference participation, in order to encourage attendance.*

NEUROBIOLOGY

Specific issues: The proportion of students describing their well-being as low slightly increased again, reaching 31%, including one case of very low well-being. Conference participation remains at reasonable levels, although lower than in most other PhD program. Seminar attendance is extremely limited and has further decreased, with 56% of students reporting attendance at fewer than 5 seminars during the academic year. The annual report outlines a detailed strategy to address this situation.

Corrective measures: *It is recommended to monitor the overall level of well-being within the PhD, also through more transparent communication from supervisors and/or the coordinator (for example, with regard to timelines related to the progress of research work). The Committee encourages the implementation of the strategies proposed in the report to address the issue and promotes greater student involvement.*