

BYLAWS OF THE GRADUATE PROGRAM IN PHYSICS AND ASTRONOMY

I. Preamble

These Bylaws establish basic operating procedures for the Graduate Program in Physics and Astronomy, subject to the regulations of Rutgers, The State University of New Jersey and the Rutgers School of Graduate Studies (SGS). The final authority for all matters of interpretation and implementation of these Bylaws shall rest with the Graduate Program Faculty.

II. Graduate Program Director

The Graduate Program Director will be appointed by the Dean of the School of Arts and Sciences upon the recommendation of the Chairperson of the SAS Department of Physics and Astronomy (hereinafter called "department"). The term of office will be negotiated at the time of appointment or reappointment. The Graduate Program Director will have general responsibility for the administration of the Graduate Program, including any matters not explicitly described in these Bylaws, and for representing the Program in consultations with the Graduate Dean and other members of the Administration.

III. The Graduate Program Faculty

a. *Criteria and Procedures for Membership:* Membership in the Graduate Program Faculty shall be open to Rutgers faculty and staff interested and able to participate in the teaching and / or training of graduate students in the Graduate Program in Physics and Astronomy. Program members are expected to engage in program activities such as teaching Graduate Program classes, supervising graduate students, serving on individual graduate student committees, and serving on Graduate Program committees.

All tenured and tenure track faculty with primary appointments in the Department of Physics and Astronomy will automatically be eligible to be full members of the Graduate Program.

All other Rutgers faculty and staff wishing to be part of the Graduate Program must be approved by a majority of votes cast at a Graduate Program Meeting by existing Program Faculty at and above the level (full member, associate member, affiliate member) at which they wish to join the Graduate Program. Faculty and staff interested in membership shall apply to the Graduate Program Director, indicating the desired level of membership, the rationale for their membership, and their expected Program activities. They shall be reviewed by the Graduate Studies and Life Committee, and have their cases presented to the Graduate Program Faculty at the next Graduate Program Faculty Meeting for a decision.

New members approved by the Graduate Program Faculty shall be nominated by the Graduate Program Director and appointed by the Dean of the Graduate School in accordance with the Bylaws of the Graduate School.

b. *Membership Level:* The rights and privileges of associate and affiliate members of the Program are limited compared to the those of full members by SGS bylaws.

Associate members may not chair Ph.D. student's committees, vote in affairs of the Program or the SGS, serve on SGS standing committees, or serve as SGS representatives to the Faculty Council.

Affiliate members may not serve on Ph.D. student's committees, chair M.S. student's committees, vote in affairs of the Program or the SGS, serve on SGS standing committees, or serve as SGS representatives to the Faculty Council.

c. *Membership Review:* Membership in the Graduate Program shall be reviewed every 5 years by the Graduate Program Director with the advice of the Graduate Studies and Life Committee. Membership shall automatically be continued for all members who have actively participated in the Program in the previous 5 years either by teaching Program courses, supervising graduate students, or serving on Program or student committees. Members who have been inactive for the preceding 5 years shall be notified by the Graduate Program Director that they are subject to removal from the Program. Members who are notified about removal may apply to the Graduate Program Director to be renewed, and their case will be reviewed by the Graduate Studies and Life Committee, and presented to the Graduate Program Faculty at the next Graduate Program Faculty Meeting. To avoid removal, members are expected to commit to an active role in the Program. Individuals may not participate in a vote on their own membership.

d. *Faculty Leaving the University:* Faculty leaving the University may remain active in the Graduate Program as long as they continue to supervise students or serve on student's committees, but they shall not be appointed to additional committees beyond those they are serving on at the time they leave the university. All Faculty leaving the university who wish to remain in the Program must notify the Graduate Program Director of their willingness to continue in the Graduate Program. Continued

membership in the Graduate Program does not require a vote of the Graduate Program Faculty. Membership of departed faculty shall be reviewed as described above in Section III.c, except that the review period shall be 4 years. Faculty leaving the university may only maintain status in the program as Members for 4 years; afterward they may only be Associate or Affiliate members.

IV. Graduate Program Meetings

Meetings of the faculty may be called by the Department Chairperson, or by the Graduate Program Director, or by a petition signed by at least 10% of the Program Faculty members.

Meetings will be held at least once every academic year. A quorum of one-quarter of the Graduate Program Faculty is required to conduct business such as electing new program members or changing program policies. Unless otherwise specified in this documents, all motions require more than 50% of the votes cast to be in favor of the motion for it to be passed. Minutes and attendance at meetings will be taken by the Graduate Program Administrative Assistant. Meetings will operate following Roberts Rules of Order.

Meetings shall normally be open to all Graduate Program Faculty and graduate students in the Program, but only the full members of the Graduate Program Faculty shall be entitled to vote. When matters involving individual students and personnel are being considered, the meeting shall normally be open only to the Graduate Program Faculty.

Student Representation: The Physics and Astronomy Graduate Student Organization (GSO), a member organization of the Rutgers Graduate Student Association, will be the official representative of the Program Graduate Students to the Graduate Program. The Graduate Studies and Life Committee will have student members as detailed in section V. The Graduate Program Director shall also meet with the GSO officers at least once each term.

V. Committees

All committees shall be appointed annually with some regard to maintaining reasonable continuity in committee composition. All committees shall keep the faculty informed as appropriate of work in progress and action under consideration, and shall bring recommendations to the faculty as appropriate.

a. The *Responsibilities Committee* of the department shall advise the department chairperson on all teaching and committee assignments to faculty members in

accordance with department bylaws. The committee shall consist of the Department Chairperson, the Graduate Program Director, the Undergraduate Coordinator, at least one full professor, at least one associate professor, and at least one assistant professor. Assignment decisions will be based on factors such as faculty expertise and requests, previous assignments, and equitable work loads.

b. The *Graduate Studies and Life Committee* (GSLC) shall supervise the operation of the graduate program, including advising graduate students, considering complaints, problems, and suggestions, recommending changes in the program, and recommending changes in the status of individual students. Membership shall consist of the Graduate Program Director (chair), several members of the Graduate Faculty appointed by the Responsibilities Committee, and at least two graduate students for consideration of policy, but not personnel matters. The graduate students shall be the President and Vice-President of the GSO, if willing, or selected by the Graduate Director, based on the advice of the GSO, if not.

c. The *Graduate Admissions Committee* shall examine the applications for admission to the Graduate Program. It is appointed by the Responsibilities Committee based on faculty requests, and should include faculty from each research area. Based on available material, such as undergraduate records, letters of recommendation, Graduate Record Examination (GRE) scores, the Test of English as a Foreign Language (TOEFL), and interview reports, the committee shall recommend to the Graduate Program Director offers of full-time, part-time, or non-matriculated admission to appropriate applicants. The committee shall also recommend the type of support (e.g. fellowship, teaching assistantship) for each full-time offer. The number of offers made will be based on estimates of the number of continuing students in the program and the number of offers that will be accepted, so that students in the program can be supported. Normally there will be no offers of full-time admission to Ph.D. students without support.

d. The *Graduate Recruiting Committee* shall prepare suitable announcements, posters, and brochures to solicit applications to the graduate program. It is appointed by the Responsibilities Committee based on faculty requests, and should include faculty from each research area. The committee shall also attempt to recruit applicants to whom offers have been made, especially by arranging guided visits to Rutgers whenever feasible. There will be at least one graduate student member of the recruiting committee, determined by the Graduate Student Organization, or selected by the Graduate Director by seeking volunteers if needed.

e. The *Ph.D. Qualifier Committee* shall be responsible for the administration, grading, and analysis of the Ph.D. candidacy examination. It is appointed by the Responsibilities Committee based on faculty requests, and should include faculty from each research area. The Ph.D. candidacy exam consists of a research project leading to a written paper, presentation, and questioning. The Qualifier Committee evaluates the

candidate, who must independently pass each of the three components. Normally each examination shall be conducted by three committee members plus the student's mentor. The student will be judged on their understanding of the advanced and underlying material for their area of research and on the quality of their paper and presentation. Each section may be passed by a majority vote of the three committee members. Students shall be given only two chances to pass the candidacy exam. On a second chance, students shall only be examined in the areas they did not pass on the first examination. All students passing the Ph.D. candidacy examination will be considered to have passed the examination required for an M.S.

f. The *Placement and Challenge Exam Committee* shall prepare Placement and Challenge Exams for the core courses. It is appointed by the Responsibilities Committee based on faculty requests, and should include faculty who have recently taught advanced undergraduate and core graduate courses. Placement Exams shall be given in topics corresponding to the core graduate Physics courses of Quantum Mechanics, Electricity and Magnetism, Classical Mechanics, and Statistical Mechanics, to ensure the students are prepared for courses in these topics at the graduate level. The Placement Exams should be at the level of advanced undergraduate courses in these subjects. The Challenge Exams are intended to allow the students to place out of the Program requirement to pass core graduate courses in Physics. These exams should be at the level of a final in the corresponding graduate course. Students taking the Challenge Exams are generally required to already have taken the corresponding course, at Rutgers or elsewhere. The Graduate Program Director may cancel Challenge Exams if there are insufficient students to justify the effort of writing the exam.

g. Other committees may be created at the discretion of the Responsibilities Committee and given mandates to deal with specific tasks.

VI. Assignments and Appointments

Teaching assignments for Graduate Program Faculty in the Program courses will be done by the Responsibilities Committee, taking into consideration faculty requests and department policies. Research advisers for graduate students are selected by the mutual consent of the individual student and Graduate Program Faculty member. The Graduate Program Director will appoint committees for individual students, including four-person dissertation committees to supervise the Ph.D. research of graduate students advanced to candidacy, and an additional external committee member for Ph.D. defenses. The Graduate Program Director may appoint three or four-person committee for M.S. defenses. Typically each student committee should be comprised of both theoretical and experimental faculty in the student's immediate area of research except for one member outside the student's immediate area. In appointing the

committees, the Graduate Program Director shall attempt to fairly distribute the work load among Program Faculty. Faculty cannot generally be removed from Ph.D. committees without their consent.

The Graduate Director, with the advice of the Graduate Studies and Life Committee and Ph.D. student advisers, shall appoint graduate students in good standing to teaching assistantships, graduate assistantships, fellowships, and coadjutant positions that are selected at the discretion of the department. Appointments to endowed Fellowships shall be made in accordance with the terms of the endowment, with competitive Fellowship assignments typically selected by the Graduate Studies and Life Committee. Generally only full time Ph.D. students in good standing are eligible for appointments, with top priority given to students in good standing with support guarantees. Appointment of students without support guarantees will be made when funding is available, and in accordance with department policies for prioritization. Priority shall generally be given to students with less previous department support. The department will attempt to have some support for all students who have not spent excessive time in the Program.

VII. Student Responsibilities and Advising

Program students are generally expected to remain “in good standing.” Requirements include, but are not limited to passing grades in classes, making appropriate progress towards a degree, and behaving professionally. For Ph.D. students, appropriate progress includes being advanced to candidacy in a timely manner, by the end of their second year unless they are given an extension by the Graduate Studies and Life Committee, and demonstrating appropriate progress towards their degree after being advanced to candidacy in subsequent annual committee meetings. For supported students, an additional requirement is a record of responsibly performing the teaching or research duties associated with assistantships.

Ph.D. students will be advised primarily by the Graduate Program Director until they start working with a Ph.D. research adviser after they are advanced to candidacy. Their progress will be reviewed by the Graduate Program Director after each academic term, and by their Ph.D. research committee at annual committee meetings after they are advanced to candidacy. Non-Ph.D. students should schedule meetings with the Graduate Program Director for advising and review of progress every semester.

Degree programs and their procedures and requirements are described in the Redbook, available online at <http://www.physics.rutgers.edu/grad/redbook/toc.html>. The Graduate Program Director is responsible for maintaining the Redbook.

VIII. Grievances and Appeals

Students have the right to appeal actions of individual faculty members or the graduate program, including but not limited to academic matters, such as grades assigned, advancement to Ph.D. candidacy, and decisions of final examination committees, and non-academic matters, such as teaching assignments for TAs. Generally the student should discuss the matter first with the relevant faculty member or committee. If the matter cannot be resolved to the student's satisfaction, the student may appeal to the Graduate Program Director, who will attempt to resolve the situation. The decision of the Graduate Program Director may be appealed to the Graduate Studies and Life Committee. The decision of the Graduate Studies and Life Committee may be appealed to the Dean of the School of Graduate Studies or their designee.

Appeals should be made within 30 calendar days; University policies or schedule considerations such as degree deadlines and class schedules may affect the resolution of the matter even if the appeal succeeds. Appeals to the Graduate Program Director or the Graduate Studies and Life Committee should be in writing, either by mail or email.

If the appeal concerns actions originally taken by the Graduate Program Director or a member of the Graduate Studies and Life Committee, those individuals shall recuse themselves from a vote of the Graduate Studies and Life Committee.

Faculty have the right to appeal actions within the graduate program. Appeals concerning course assignments should be made to the Responsibilities Committee. Appeals concerning Graduate Program Director or Graduate Program Committee actions should be made to the Graduate Program Director for consideration by the Graduate Studies and Life Committee, and subsequently if desired to the Graduate Program Faculty at a Graduate Program Meeting.

IX. Enactment and Amendments

Enacting or amending these bylaws requires a 2/3 majority of votes cast by voting members of the Graduate Faculty at a Graduate Program Meeting.

Approved by the Graduate Faculty in Physics and Astronomy 10/16/2018, R Gilman
Amended by the Graduate Faculty in Physics and Astronomy 11/19/2019, R Gilman