

Grad Student Presentation Nevis Retreat 2018



Representatives from Physics Graduate Council
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On behalf of the graduate students

Outline

- Review of What the Physics Graduate Council Is
- Review and Status of Recent Initiatives
- Grad Student Issues
 - Teaching
 - Classes
 - Quals
 - Research
 - Website
 - Department Activities
 - Diversity
 - Infrastructure

What does the PGC do?

- The Physics Graduate Council serves as a formal and direct link between graduate students and the Physics Department and professors.
- The PGC unites different graduate student initiatives and leadership roles within the department.
- Formed at the start of 2017, will hold elections at the start of next semester.

Recent Initiatives

- Open Thesis Defenses
 - Approved at the end of the spring, currently happening
- Advising Committees
 - Approved at November 16th faculty meeting.
- Quals
 - Creation of Quals syllabus
 - Discussion of changes to format
- Trivia Welcome Event

Recent Initiatives – Advising Committees

- The Department will appoint for each student in their third year and beyond a three-person committee which will meet at least once per year with the student.
- The committee will consist of the student's Ph.D. advisor and two other members of the Physics Faculty chosen by the student in consultation with the advisor and/or the Director of Graduate Studies. Alternatively, one member of the committee could be a faculty member from another department, university or the equivalent.
- Physics office staff will assign each student a month in which this meeting is to take place and the student will have responsibility for arranging a time for the meeting.
- In advance of this meeting, the student will distribute a few-sentence description of their current research, the plan for their doctoral research and their progress toward completing that plan. This short write-up will also include a list of items related to professional development such as conferences attended, papers submitted for publication and talks presented.

Recent Initiatives – Advising Committees

- This yearly meeting will last about one hour and allow more detailed discussion of the student's research activities with a focus on the plan for completing the Ph.D. thesis project.
- The meeting may begin with a presentation of the student's current and planned research lasting no more than 30 minutes.
- One of the faculty on the committee who is not the research sponsor will be chosen as chair and will transmit to the Physics Office a few-sentence written summary of the meeting, including recommendations for the student and the time for a next meeting.
- Exceptions can be made with the approval of the Director of Graduate Studies.

Giving Due Thanks

As a result of discussions over the past two years:

- Open thesis defenses have been implemented
- Graduate advising committees have been adopted
- Graduate student seminars/happy hours are still happening
- A Quals syllabus has been drafted
- Communication about work in Pupin has been greatly improved

Classes

- It may be useful for the grad student courses all to have recitation TAs, or, at least, the introductory ones.
- Is it possible to implement a way for students to communicate what kind of classes we would like to have? (e.g., statistics, programming, string theory, condensed matter II)

Teaching

- Payment for various activities is unclear.
 - Professor Dodd has totally revamped the system, assigning fixed hourly rates, e.g., \$35/hr for recitation, \$20/hr for office hours, etc. Hours are then estimated for each class.
 - Some of you have seen this proposed breakdown at our TA meetings when Professor Dodd took some feedback, in order to adjust the algorithm to make it the most fair. He is hoping to finalize this before the start of next semester and implement it for Spring. And, once finalized, this pay scheme will be significantly more transparent than years prior.

Quals

- Syllabus Approved
 - Currently being finalized by the PGC and will be posted to the quals page
- Various possible changes:
 - Removing test 4 and combining SR with either Classical Mech or EM
 - Combining tests 5 and 6
 - Moving the date of the tests
 - Abolishing quals altogether

Research

- The Machine Shop setup is not ideal.
 - George Leou is semi-retired and only available two days a week.
 - Students don't always have the technical expertise for more advanced techniques.
 - Equipment is very old.
 - Other universities have fully staffed shops where students can submit jobs to professional machinists.
 - Labs are often going to outside shops to get jobs done, which takes time and money.

Website

- The website is one of the public faces of the department, and as such should be informative and usable.
- It is a key tool for recruitment.
- Issues include:
 - **Research Introduction page:** many professors are missing, some former professors are still listed, and some emeritus professors are not listed as such.
 - **Introduction page:** some professors are listed here but are not listed on the pages for the various subfields. This is particularly bad in the Theoretical Physics Faculty page.
 - **Special Events page:** Most recent event was in 2015.
 - We still haven't found the Higgs boson, despite having **another** additional year!
 - One positive update: The High Energy Theory Group has a new page ([Link](#)) that looks great.

Website

- Issues (con't):
 - **Courses page:** broken: [Link](#)
 - **Undergraduate and graduate courses:** listed in no order, on the wrong pages, and are generally badly presented and even inaccurate. (We know that this info is from the registrar.)
[Link](#)
 - **General:**
 - i. Aesthetics - many pages look unprofessional
 - 1. Compare Chemistry's: [Link](#)
 - ii. Pages are redundant or contain misinformation.
 - iii. Usability is very low.
- The website has come up many times before. How can it be fixed? *Is there someone who can be put in charge of fixing and then maintaining it?*

Department Activities

- Colloquium
 - Move the post-colloquium wine and cheese to a different location and provide enough for everyone.
 - Attendance
 - Involvement in choosing speakers
- Open House:
 - Bring prospective students to different places, such as Lerner (where they have foosball and air hockey and legos) or Pupin's rooftop observatory
 - Diversification of speakers

Advising

Now that advising committees for students in years 3+ have been approved, we move our attention to students in their first two years:

- Providing more guidance in the first two years of grad school.
- Help with finding research advisors, and research groups for the first Summer (e.g. make the process more formal)
- Help with choosing right courses, creating academic tracks

Diversity

We had some excellent feedback in this area, some of the notable thoughts:

- Creating a welcoming and inclusive environment for students of color / female/non-binary students / students from different socioeconomic backgrounds
- Asking about and using students' preferred pronouns
- Diversification of speakers at our Open House
- Women in Physics faculty advisor

Infrastructure

- Security: Offices on the ninth floor and sixth floor, stolen devices, custom machine pieces, and nothing changed . . .
- Department oversight of the kitchenette in the theory center, presents a bad image to visitors
 - Keeping the theory center stocked with utensils
- Heating system?

Final Thoughts

- **Taking action on concerns brought up during the Nevis Retreat**
 - Many of these concerns are the same as previous years.
 - The PGC can advocate for grad students, host events, give input to faculty, etc.
 - We have worked with the faculty Quality of Life and Graduate Committees on issues like this. **But....**
 - Help is needed from the administrative and faculty side to make sure many of these concerns are addressed (website, infrastructure updates, misc. maintenance, computer lab issues).
 - Is there a point person(s) we can identify to help address and make sure issues like these are resolved?

Thank you for your time.