

Physics Department Town Hall in Response to the Black Lives Matter Movement

June 26th, 2020 4pm

Opening Statements (4:00pm - 4:10pm)

- PGC
 - Roman opened things up by thanking everyone and pushing for the town hall. Notes our role as facilitators and acknowledgment that black live matter and support for the fight against systemic racism.
 - Lays out the format and thanks everyone who submitted to the form
- Professor Mawhinney and Professor Basov
 - Prof. Mawhinney thanked everyone at the start of the statement. Acknowledges the toll of COVID and particularly the issues faced by disadvantaged minority and the “astonishing persistence” of these issues
 - Prof. Basov then thanked everyone for putting together the event and noted that his term as chair starts in 5 days.
 - Says he wants to see more graduate students involved in the department and invites PGC and Spectra to play a bigger role in dept affairs
 - Wants representatives on department committees including climate and inclusion committee and others (not enumerated at this time)
- Spectra
 - Anjali Verma gives the update from Spectra, the Society for diversity and equity in physics, one of the only spaces in the department which prioritizes minority voices.
 - She told her story about how so many minority and black faces disappeared from the department because introductory physics discouraged them and caused them to transfer out of the department.
 - The goal of Spectra was to create a community which encourages the involvement of underrepresented students in physics. Notes they have 3 kinds of events:
 - Snack and solves -- A chance for underrepresented students to work together and get support in classes
 - URM faculty lunches -- A less formal lunch with professors
 - Mentorship programs -- Pairs students with a mentor

Shared Experiences, Discussion, and Actions Items (4:10pm - 5:00pm)

- Sharing of experiences
 - Anonymous Statements
 - Elena reads the anonymous statements.
 - First statement is from an undergraduate and notes that the people who have to speak up about these issues are the ones who are in

the most tenuous positions. It expresses the desire for faculty to more actively be part of solving these problems instead of simply listening and learning.

- Second statement is from a student who notes that professors do not care about pedagogy. Also notes that graduate students do not all want to purely stay in academia and the focus should be less dogmatically on that.
- Third statement is from a graduate student noting that there is a departmental culture of hyper-individualism which can particularly disadvantage minorities and underrepresented groups.

- Anjali Verma

- Anjali reads her statement and describes her experience as a female, mixed race, black student who came to Columbia with less background in the field than others.
- She says there is a hyperindividualism and a real shaming of students who do not already understand the material after learning it for the first time.
- She notes that the assumed level of knowledge is a relic of the fact that students were not admitted from diverse backgrounds previously.
- When attempts to change the department have been made by her or others like her, the department has met them with claims that this is “just what we do”.
- A professor told her, using racist language, that her work on diversity work was a waste of time, referring to black students as “chocolate-y kids”
- She ends with quotes by Dr. Prescod-Weinstein about physics being a community which does not understand the different experiences of different people and how the systems it is built upon privilege certain people over others.

- Discussion of topics submitted to the form

- Nate Saffold

- Nate begins the discussion by noting that he could not really think of pretty much any other black graduate students in the department.
- He poses the question “Why are there so few black students?” and notes that the REU program at Berkeley he participated in gave him the passion and courage to continue on his path. Also, the letter of recommendation was important to his path.

- Nate references the literature and the AIP report regarding why there are so few black physicists and how all of the levels “pass the buck” down to other portions of the pipeline not providing enough candidates.
- Nate brings up that affirmative action is more than just the obvious ways it comes up, but involves affirming that underprivileged students have a place in your community.
- Harvard has a department-level statement about the commitment to diversity while Columbia only has Spectra statements available.
- Chelsea Dominique Rodriguez also notes that she was not sure about how she should participate as one of the few black voices in the department.
- Prof. Parsons brings up the Nevis REU program in response to Nate’s experience as an effort from the department to increase diversity, as a 25% minority program working to give research opportunities to students along with the affirmation that they belong here. Notes the program is not large enough due to costs and federal funding limits
- Prof. Basov also notes the quantum material REU program which has been ongoing for the past 5 years which is intended to also help improve the diversity pipeline.
- Giancarlo Pereira also notes that these issues have been brought to the department and professors directly, while people are now acting surprised in spite of these being recurring issues.
- Barbara Cruvinel Santiago noted that people want to see what other departments are doing. She references the astronomy department having a larger number of black students in spite of its smaller population. She notes the department is also 14% female, significantly below the national average of 20%, showing Columbia’s failure given that it certainly has the clout to attract qualified underrepresented students.
 - Barbara also notes the imbalanced distribution of service work amongst graduate students within the department.
- Prof. Dodd says that undergraduate students have told him for over a decade that female and underrepresented students have felt unwelcome and unsupported in the department, by both students and professors. He is happy about the ongoing work but believes that much more needs to be done from the top down.

- He notes that faculty participation has been abysmally low at town halls and that there is less than 25% of the faculty current at this town hall. He notes the need for a culture shift for faculty to be much more welcoming and to more publicly care about these issues.
 - Kathryn Sutton thanks the organizers and notes that other physics communities have been more reluctant to allow an open forum. She also notes that it is not Nate's job to tell us that we need to do better and that resources exist to guide our growth as a department.
- Harrison Siegel
 - Harrison Siegel brought up a study of implicit bias in the hiring process in physics and the lack of empathy he has personally observed in the department and the field writ large.
 - The study he mentioned is from the Stanford Institute for Gender Research using identical resumes with a male vs. female name submitted for a lab manager position, submitted to physics departments, among others.
 - The resumes from applicants named "Jennifer" were consistently rated lower, in spite of being identical.
 - There was a follow-up study designing a course to educate researchers on these issues, which improved these issues amongst people who took the course.
 - Harrison thanks everyone who spoke so far and notes existing resources and research.
 - Zoë Webb-Mack noted that issues of gender have been brought up during a town hall on anti-black racism and that the level of exclusivity which has led to these topics become entangled is quite problematic. All of these issues should not be lumped into one call or one conversation, and they will require significant further work.
- Discussion of action items submitted to the form
 - Emily Tiberi & Colin Adams - brief overview of the Community Round Table
 - Emily Tiberi begins discussing the community roundtables which occurred over the past year to talk about issues of diversity and equity. She notes that the goal was not simply to have conversations but also to take action on these issues.
 - Colin notes that if we want to actually be committed to these issues as a department, the department needs to commit to having continued discussions such as the roundtable in the future.

- Elena then shared a directly related statement that we need to take more action from the ideas expressed in the roundtable such as eliminating timed exams.
- Barbara: 2018 AAS Task Force on Diversity and Inclusion in Astronomy Graduate Education
<https://assets.pubpub.org/8n7rgw19/31579293747965.pdf>
 - Barbara notes that the department should do more to bring in speakers on these issues like her undergraduate department did. She encourages more students to participate in Spectra programming.
 - She notes that one of these speakers was the author of the report in the link above, who is on the faculty of the astronomy department at Columbia.
- AIP Report: <https://www.aip.org/diversity-initiatives/team-up-task-force>
 - Barbara also discusses the above report on how to attract more minority students in physics. It includes a self-assessment for the department which she encourages the department to take.
 - Elena notes a form submission on the need for a committee on diversity and equity. Its responsibilities could include managing this AIP assessment or APS site visits and the establishment of programs to promote inclusion.
 - The comment also notes that departments frequently establish committees in place of action, which we need to actively try to avoid here.
 - Prof. Basov notes from his opening statement that he is planning to form such a committee and needs two representatives from the graduate student body.
 - Emily Tiberi notes that when one searches for diversity statements online, they usually include a public statement of goals and a public progress report, which she encourages the department to have.
 - Elena then comments on her own behalf that she wants to make sure the department is not putting off work everyone needs to do by designating a few volunteers to handle it.
- Noah Bitterman & others - outreach initiatives in Harlem Schools
 - Noah says he and Dhruv Desai, amongst other graduate students, want to work on developing a stronger culture of outreach within the department. He notes the existing programs we have, Girls Science Day and the Reading Team run by Prof. Hui.

- He notes that other departments have a specific outreach coordinator and suggests that the department should also have one, along with a PGC officer with outreach responsibilities.
- Noah and Dhruv also believe that a large-scale, long-lived program would be the most effective form of outreach. They plan to reach out to other departments in order to form a Columbia-wide STEM-based concentrated effort over the next couple weeks.
- Claire noted that a broad STEM program sounds great but like it is a much longer-term goal and that programs already exist within physics and more engagement with these programs can be an immediate change we make.
- Prof. Hui commented that the reading team has been going for 3 years, starting in 2017, and that both Prof. Rosen and a faculty member from astronomy have been involved. The program involves going to teach math to children in an afterschool program in Harlem twice per week, pooled from about 18 different public schools. They began teaching Kindergarteners and now cover K-4th grade. He says they always need more teachers as they expand and welcome more participation.
 - He notes that given the current pandemic, they need to change their mode of operation and he has been in touch with the reading team program to begin online instruction and surveying interest. This instruction would be problematic for younger students but will continue for 3rd grade and above.
 - He also notes that the astronomy department has a strong, long-standing culture of outreach which ours does not have.
 - He says Noah should speak with Prof. Mary Putnam in astronomy to collaborate on outreach to high school students.
- Aidan Reddy, a rising senior undergraduate with SPS, noted that there is significant room for SPS involvement with outreach efforts both outside Columbia and within the department to create a more supportive and welcoming environment. Encourages follow-up on more steps they can take
- Iris Ponce, a participant in the bridge program who is attending graduate school elsewhere, asks what the purpose of our outreach or the target of it is. She notes the questionable history of Columbia's relationship with Harlem and the fact that in nearby

neighborhoods, Columbia is not perceived in a positive light. She notes that there is a desire to include people in science as faculty or graduate students, which is oftentimes too late.

- John Staunton added that the Boys and Girls Club of America has previously worked with the UC system in order to bring in more underrepresented students. He also notes *institution I couldn't quite hear* which works within NYC. He also notes that we have an important role in the community around us and the role of Columbia in gentrification of the surrounding Harlem area.
- Anjali Verma notes that most of our initiatives at Columbia are driven by students or affected communities and that faculty really needs to be more involved in these initiatives. With only 25% of faculty at this meeting and very little support writ large, it is difficult to have full participation in these initiatives.

Questions to the Department Leadership (5:00pm - 5:30pm)

- Representation and Recruitment
 - Nate Saffold & related anonymous questions
 - Nate asks "How does the department intend to address underrepresentation of women and people of color at all levels?" Specifically, he wants to focus on policies and specific actions being taken to ensure a long-term commitment.
 - Prof. Mawhinney details policies currently in place.
 - He notes additional graduate admissions slots specifically for women candidates. Because the yield of women students tends to be lower, they have been able to dramatically increase offers to women students. He notes that recruitment of these admitted students has been mixed and he is unsure why. No policy is in place for underrepresented minorities, and he notes that a change needs to be made in this regard. He says that a summer program could help with recruitment in this regard.
 - He says that PhD review committees and open defenses are student-led initiatives which have had some good results.
 - Prof. Basov then remarks that the meeting has been very useful to him and notes that very little communication has been going on between the department and the graduate students. He says that in five days, he will start taking full responsibility. He says there should be frequent discussions with the PGC and the chair every 2 weeks

for an hour in order to keep communication and discussions going. He says that he will start sending time options based on his availability.

- For the committee on climate, diversity, and inclusion, he notes that this is one of 12 committees on which faculty can serve. Starting on July 1st, the chair will allow people to volunteer to serve on this committee, which he claims worked well when he was at UCSD.
 - He also notes that the department is not a monolithic entity and is composed of individuals with their own goals. He hopes that these individuals will speak up to participate in making a lot of these initiatives a reality, including both professors and students.
 - He says the name of the graduate admissions committee is being changed to the graduate recruitment committee, and they plan to add another member focused on inclusion and diversity in our admissions process.
- Sun then asks if the department will commit to hiring black faculty and also asks what the department does to support black students within the department.
- Prof. Mawhinney notes the university-wide push to hire women and underrepresented minorities. He says the success rate is low because the people the department tries to hire are being sought after by all other peer institutions. He notes that Dennis Mitchell from the office of the provost is especially in charge of this program. For all positions, if the applicant pool is not diverse enough, they have to answer to arts and sciences.
 - Prof. Mawhinney then says that 22 women were admitted and 7 accepted the offer, of a class of 28 people, making up 25%.
- Iris comments that there is a very small pool of applicants for faculty positions and asks what the acceptance rate was for women and underrepresented minorities this year. Neither Basov nor Mawhinney have numbers, but Basov says he has spent countless hours on Zoom trying to recruit these students and has offered fellowships in addition to regular admissions.
- Andrew Liu then comments that at UC schools, a diversity statement is required, while one is not required from Columbia.

- Prof. Basov comments on this point, coming from the UC system, and reads the charge of the new recruitment committee to ensure that new graduate classes at Columbia are diverse.
- APS Site visit report
 - Bárbara Cruvinel Santiago & related anonymous questions
 - Barbara thanks the department for having the site visit and notes that good recommendations came out of it. She says the department has not shared the resulting report and that it is necessary to communicate these results, which include answers to a lot of the questions posed here.
 - She notes that the speakers at the open house not being at all diverse is an obvious place for improvement.
 - She says that the rest of the PGC, among with herself, were shocked that these results have not come out.
 - Prof. Mawhinney notes that no report or contact have come from the site visit since it occurred at the tail end of in-person meetings due to coronavirus. He says that he will follow up with the committee who conducted the site visit about receiving the report.
 - Barbara responds saying that they are supposed to send the report 2 weeks after the visit and asks for a department commitment to release the report.
- Policing on Campus Petition
 - Colin Adams & Harrison Siegel
 - <https://docs.google.com/document/d/1vHXFMVVGbm4vpZ4tXo8qHHBSBj491RAeFnb3kQD9hAw/edit?usp=sharing>
- Outreach
 - Noah Bitterman & related anonymous questions
 - Noah asks that we hire an outreach coordinator and Prof. Mawhinney responds by saying that there is no money to do so.
 - Sun asks a question submitted anonymously about the Columbia bridge program and whether the department is planning to expand it as a potential avenue to increased inclusivity.
 - Prof. Basov comments that we have established a partnership with Howard, an HBCU, for collaborative research activities and recruitment to our PhD program since they do not have an active physics PhD program.
 - Iris comments that the bridge program is one of the best programs in the astronomy department to promote

inclusivity, and the funding largely comes from the Provost's office.

- Dhruv thanks faculty for their attendance and says that in order to hire a diversity coordinator, we should work harder to find a funding source. Prof. Mawhinney responds that we could try to be creative but a solution does not exist at the department level.
- Barbara asks if Prof. Mawhinney can make this push as Dean of Science when he fills his new position. He says it will be difficult to push for a single department to get resources and says he is not optimistic.
- Colin mentions that he was surprised by the mention of a collaboration with Howard University and asks if we can make it more official.
 - Prof. Basov notes that a planned conference on stars and quantum materials with Howard University and other underrepresented students was cancelled due to COVID, although they are potentially going to pursue a Zoom format.
 - Colin follows up asking if the physics department would be willing to engage in a formal partnership with Howard or another HBCU, to which Prof. Basov says unequivocally yes but notes that it is hard to make sustainable partnerships, which is why the current plans are field-specific. Colin notes he would be interested in helping with this process.
- Other items
 - Use of the PGRE: <https://advances.sciencemag.org/content/5/1/eaat7550>
 - Discussion occurred in the general section below.

General Discussion (5:30pm - 5:45pm)

- Claire begins the general discussion by noting that a speaker from the roundtable highlighted that a large reason minorities drop out of physics is quality of teaching. All students have universal complaints about teaching quality, but they disproportionately affect students who are underrepresented minorities.
 - She asks if the department will make a commitment to weigh teaching quality more heavily in hiring decisions or assessment of faculty. She also pushes to include more effective teaching methods for faculty.
 - Prof. Mawhinney responds that teaching reviews for introductory courses are good but not great at Columbia. He notes that the department has

been pushing a variety of sources for additional funding in order to augment our current resources for teaching.

- Claire then responds by noting that it is free to improve the teaching of current faculty.
- Niccolo then comments on the point that students do not find a welcoming community, saying that the different levels of introductory courses really exacerbate these issues. He recommends that we re-assess the stratification of students in the introductory courses from the very start.
 - He encourages moving away from a curved grading style and encouraging much more collaborative course structures.
- Iris comments that in the Yale town hall she attended, a major focus was whether or not the GRE could be required for students in 2021 since testing centers are largely unavailable to students.
 - Prof. Mawhinney commits to discussing this issue and says nothing has been done.
 - Iris says July 1st may be a deadline, but Prof. Mawhinney says they plan to decide in the Fall
 - Prof. Basov says that the committee for graduate recruitment is planning to assess the efficacy of things like the PGRE.
 - Barbara notes that students are deciding the list of schools where they plan to apply now and we should have an answer for them sooner, and that schools like UChicago and MIT have already canceled their PGRE requirement for this year.
- Prof. Dodd says that he sees many professors teaching very traditionally because this method is how they were taught, but these methods can be quite detrimental to underrepresented students. He says a real push is being made to push for better non-traditional teaching styles to have a more inclusive classroom environment.
 - Prof. Dodd says that Accelerate physics in particular is overtly competitive and aggressive, and it does not foster a community of support at all.
 - The Science Honors Program is also an area where he notes that significant strides could be made.
- Prof. Hui comments that 2 years ago, he helped a freshman who came to Columbia excited about physics but who had significant difficulties with her first physics class at Columbia. He says this experience helped him realize that there is so much more Columbia needs to do in order to help students succeed, when they are certainly capable of it.
- Elena then asked Profs. Basov and Mawhinney for responses as the incoming and outgoing chairs.

- Prof. Mawhinney notes that there is a real pipeline problem and that our department needs to do more to support a strong pipeline of students and faculty from underrepresented groups through the department. He notes that in his 30 years with the department, a lot of these conversations have never happened before, which is a good sign. He thanks everyone for their participation.
- Prof. Basov thanks everyone for joining and thanks the moderators for a well-structured and well-organized meeting. He follows up on his offer to continue meeting with the PGC in the coming weeks.
- Elena then thanks everyone for their participation and emphasizes a focus on actionable items from this meeting, including meetings with the chair and continued town halls. She reminds everyone to look at the AIP report and thanks everyone for all of their efforts, noting this meeting is only a small first step.