

## **An Action Plan for Equity and Inclusion**

Department of Astrophysical Sciences, Princeton University

*Version 1.0, October 2020*

We commit as a department to building and maintaining an environment in which all feel welcome and all have the resources and tools they need to succeed. Many factors in academia and society as a whole have created barriers to Blacks, Latinx and other under-represented minorities (URM)<sup>1</sup> to become astrophysicists. This document describes the actions we are taking to remove these barriers within our department.

This document was drafted in the Summer and Fall of 2020 based on a series of discussions within the department. It is meant to be a living document, to be updated as we learn more about the best ways for us as a department and an academic community to reflect our values.

### **1. Coordination of Equity and Inclusion efforts across the Department**

- a. A faculty member will be designated as the Equity and Inclusion (EI) Coordinator for the Department of Astrophysical Sciences. The EI Coordinator will work closely with the department Chair on the various initiatives described in this document. The service work the EI Coordinator does will be the principal service contribution done by the individual for the department, analogous to (e.g.) the Director of Graduate Studies and the Director of Postdoctoral Studies. The EI Coordinator, in partnership with the Chair, will set up several ad-hoc committees of undergraduate and graduate students, postdocs and other researchers, faculty and staff to address specific issues highlighted in this document.
- b. The EI Coordinator will be responsible for maintaining this document and updating it when needed, with input from the members of the department.

### **2. Recruitment of Students, Postdocs, and Faculty**

- a. The department is exploring partnerships with Minority-Serving Institutions in New Jersey and neighboring states, with the goal to set up student and

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<sup>1</sup> For the purpose of this document, we follow the definition of under-represented minority (URM) given by [Princeton University](#). Under-represented minorities include U.S. persons who identify as Black, Latinx, Native American, Alaska Native, Pacific Islander, or who have a multi-racial identity that includes at least one of those categories. While the present document focuses on URMs, we recognize that diversity has multiple axes (gender, sexual orientation, national origin, physical disability etc.), which intersect in multiple ways. We strive to build an inclusive environment for all.

faculty exchanges, scientific collaborations, and educational opportunities. We commit to preparing a specific plan by September 2021.

- b. The department commits to sponsoring a booth and sending at least one faculty member to each of the annual meetings of the National Society of Black Physicists (NSBP) and the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), to represent the department and encourage attendees to apply to our program at all levels (undergraduate, graduate, postdoc, and faculty). Students and postdocs who wish to attend these meetings will be encouraged to do so as well, and will receive travel support as needed from a combination of department and University funds. The department commits to attending meetings of other organizations with significant numbers of URM students and researchers, as opportunities arise. The faculty members who attend these meetings will coordinate with the appropriate Equity and Inclusion offices at the university, to discuss best practices in recruitment at such meetings. We will coordinate these visits with other departments from Princeton University.
- c. Graduate school application fee waivers may be [requested](#) by US citizens and by participants in a number of programs, such as the National Science Foundation Research Experience for Undergraduates, the Mellon Mays Undergraduate Fellowship, the National Society of Black Physicists, the National Society of Hispanic Physicists, QuestBridge Scholars, and many others. Nearly all requests for fee waivers in recent years have been granted. Princeton University has developed several recruitment programs for URM graduate student candidates. We commit to increase departmental connection and involvement in these programs, including the Prospective PhD Preview Program and the Access Diversity and Inclusion campaign.
- d. We will use the department's seminars and colloquia as recruitment tools to bring URM graduate students and postdocs to the department. The EI Coordinator and department Chair will work with seminar and colloquium organizers to identify a diverse set of speakers.
- e. To support the goals described in (d), we will make up to \$30K/year of departmental funds available to support the travel of seminar speakers, with preference given to those with limited financial resources. Seminar organizers should request these funds of the department Chair.
- f. The department runs an annual Undergraduate Summer Research Program involving both Princeton students and students recruited from the National Astronomy Consortium (NAC). Students in the program receive

intensive training in programming and research skills, and carry out a research project over 8-10 weeks with a member of the faculty or research staff. NAC identifies promising students from groups that have been overlooked by the traditional academic pipeline from all over the country. We have supported roughly three NAC students per year in recent years, and commit to increasing this to six students per year from NAC and/or similar programs for URM students.

- g. The Graduate School's pre-doctoral program, designed to broaden participation of historically under-represented or underserved students, offers admission to the department's graduate program, giving the students the option of an extra year of courses and research before taking their Generals exam. We are one of a few departments at Princeton to host pre-doctoral students thus far. We commit to continue to work with the Graduate School to ensure that the pre-doctoral program is supportive of its students and addresses their needs and concerns, and that the faculty have the training they need for proper mentorship of the students.

### 3. Admissions and Hiring

- a. *Postdoctoral*: The Department of Astrophysical Sciences has entered into a partnership with the Physics Department, the Geosciences Department, and the Lewis-Sigler Institute (biophysics) to create a [Prize postdoctoral fellowship](#). This program will bring scholars with unique backgrounds and insights, whose work will contribute to the promotion of groups that have been historically, and are presently, under-represented in Physics and related fields. This program aims for a steady-state cohort of six or more Fellows at Princeton at any given time, of which at least two would be in Astrophysics.
- b. *Postdoctoral*: The department advertises for a variety of postdoctoral positions each year. Applicants to any one position are considered for all positions in the department, increasing the probability that promising URM candidates may find appropriate positions in the department. All of our ads for postdoctoral positions include the following language: *Our department is committed to diversity and making the field more equitable and inclusive. With this in mind, we will take into consideration personal experiences, as well as efforts in education, outreach or other service activities related to astrophysics or other sciences. Applicants are invited to describe such experiences and their commitment to diversity, equity and inclusion in the cover letter.*

- c. *Postdoctoral and faculty*: The faculty will be encouraged to take part in training by the University's Office of Institutional Equity and Diversity on best practices in reviewing applications and avoiding unconscious bias. We will also solicit input from our current postdocs to explore how the hiring process for postdocs and faculty can be made more equitable.
- d. *Faculty*: The President of Princeton University has recently announced that it aspires to "increase by 50 percent the number of tenured or tenure-track faculty members from under-represented groups over the next five years." The department will work with the University to make sure that future faculty searches are carried out in an unbiased way, and that our searches are sufficiently broad in scope to encourage applications from a wide variety of scientists. We will solicit and encourage applications from a broad range of candidates, increasing the pool of excellent candidates who can enhance the representation of groups historically under-represented in astrophysics. We will coordinate with other departments in the university (including but not limited to Physics, Geosciences, and Mechanical and Aerospace Engineering) to explore the possibility of a group of hires across these fields.
- e. *Graduate*: We commit to reviewing our graduate admissions process and program, with a goal to broaden the diversity of the students we admit. We will study the practices of our peer institutions, and consider whether there are aspects of their admission process that we would like to adopt. We will use the AIP TEAM-UP report on systemic changes to increase African-Americans in Physics and the report of the AAS Task Force on Diversity and Inclusion in Astronomy Graduate Education as resources for best practices for our admissions process and how to improve departmental climate. We will be explicit about our definitions of excellence, and how these may broaden to be more inclusive. We will discuss the possibility of involving graduate students in the admissions process. We will also re-examine the structure of the graduate program itself. We will convene an ad-hoc committee including students, postdocs, and faculty to study whether it can be made more inclusive, and will report by January 2021.
- f. *Graduate*: We will continue to discuss use of the physics GRE, and will use the coming year (when the GREs are optional because of the challenges of the pandemic) as a chance to evaluate our admissions process without it.

- g. *Undergraduate*: The department will work with programs at the university level to encourage high-school students from less privileged backgrounds to consider STEM fields, and to apply to Princeton.
- h. The department will work with the Provost's office to compile anonymized demographic data to quantify the demographic mix of the department, identify areas for improvement, and track changes with time.

#### 4. Climate

##### a. Climate Committee:

The department has a [Climate Committee for Equity and Inclusion](#), including members from the faculty, postdoctoral researchers and research staff, graduate students, undergraduates, and administrative staff. This committee is charged with assessing the climate in the department and identifying and recommending ways in which departmental activities can be more welcoming and supportive of all its members.

The Climate Committee is committed to running anonymized surveys every other year of departmental members prepared in coordination with the appropriate university offices, and communicating with the department regularly via Town Halls.

##### b. An External Review of the Department

The department is planning to invite a Committee of Visitors to review all aspects of the department, including climate, academics, and research. This review will likely take place in Fall 2021, and the external reviewers will be selected in part based on their insights into climate and equity issues.

##### c. Education about Equity

1. The faculty will be strongly encouraged to take part in workshops (such as the [Faculty Advancement Network](#)) focused on unconscious bias, inclusive mentoring, confronting systemic inequities etc., especially in the context of hiring (postdoc and faculty) and graduate student selection. These workshops will be run by the Office of Institutional Equity and Diversity in the Provost's Office of Princeton University. We will explore opportunities for such training for the department as a whole as well.

2. Led by graduate students, the department has restarted regular meetings of an "astro-justice" group (to which all department members are welcome). Readings will include social-science research on racism in the academy, studies of equity in hiring, etc.

3. The department is partnering with the physics department to run a talk series on Equity issues in academia; these started in Summer 2020.

4. The department commits to spending a day each year to reflect on and discuss our progress in equity, building on the #ShutDownSTEM action of June 2020.

**d. Service**

- a. Making our department and our community more equitable and inclusive is hard work, requiring sustained effort by many people at every level of the department. This work often goes unrecognized. The department will institute a formal yearly recognition of students, postdoctoral researchers, and staff whose work has contributed directly to the improvement of the department.
- b. The department supports a number of outreach activities, including public observing nights in both English and Spanish. The department outreach efforts will actively seek opportunities to partner with public schools and libraries in Trenton and other nearby largely URM communities. Department members play a major role in the Prison Teaching Initiative (PTI), which (quoting from its mission statement), “[provides] the highest quality post-secondary education to incarcerated students in New Jersey...”. The department supports the PTI with logistical support, including xeroxing costs.

**e. Mentoring and Support**

- a. We have instituted a formal mentoring program for postdocs with faculty outside their research group. We will consider and implement near-peer mentoring models for undergraduate and graduate students, and will consult with the relevant University offices to ensure that students have mentors that represent them along axes including both racial and ethnic backgrounds and scientific interests.
- b. There is a departmental representative among the faculty for the undergraduates (Neta Bahcall), graduate students (Josh Winn), and postdoctoral researchers (Jeremy Goodman); they are the first point of contact for their constituencies. These representatives hold regular sessions with their groups. In addition, the faculty have been offering regular listening sessions for our URM students, to make a space for their specific needs and concerns to be heard.

**5. Giving Feedback, Making Suggestions**

All department members are encouraged to speak to the Chair or any faculty member about matters of concern. The University encourages all members of our community to [report](#) all incidents of discrimination and/or harassment to the [Office of Institutional Equity and Diversity](#). For all other matters, one may express concerns or give suggestions anonymously via an anonymous electronic mechanism for suggestions and complaints, which the poster can choose to have sent to either the department Chair or

the Climate committee. We will also set up a physical mailbox in Peyton Hall in which anonymous notes can be left for the department Chair.