Equity, Diversity & Inclusion (EDI) Strategic Plan Department of Physics, University of Chicago

May 2022

Our mission in the Department of Physics is to advance the frontiers of scientific knowledge through pioneering research while providing a world-class education and training to a new generation of students and scientists. The Department has a long and distinguished history of scientific leadership and ground-breaking discoveries — many of which have opened new directions of scientific inquiry — as well as a long list of alumni who have gone on to influential careers in physics and many other fields.

Looking to the future, we want to continue to be a welcoming destination for a diverse group of students, postdocs, staff, and faculty from all around the world; we want to ensure an intellectual and professional environment where every member of our department feels a sense of belonging in our physics community and is supported to perform their best possible work; and we want to create an inclusive educational environment where we can effectively share our science, and our enthusiasm for it, with everyone who enters our doors.

A firm commitment to the principles of equity, diversity, and inclusion is fundamental to our success. This document lays out elements of a plan, including both short- and long-term goals and ideas, for the Department of Physics to always be improving its climate and inclusivity. We have made some progress, but there is always more work to do. Students, postdocs, faculty, and staff all contribute substantially to the culture and climate in the Department, and a firm commitment by all stakeholders is essential to continued improvement. The implementation of this Plan will benefit from the support and contributions of all of us.

Development of the Strategic Plan

The University has published a <u>Diversity & Inclusion Planning Toolkit</u> to assist units in the development of individualized plans for reaching their own diversity and inclusion goals. We have followed the University's template in the development of an Equity, Diversity, and Inclusion Strategic Plan for the Department of Physics, the status of which is presented in this document. The Physics EDI Plan should be considered a "living plan" that can be updated and expanded in the future with new ideas or to respond to new challenges.

The University template identifies four pillars of an EDI Strategic Plan:

- Infrastructure: Creating the conditions and identifying the resources needed for sustained diversity and inclusion efforts.
- **Climate:** Building a culture of full participation and high engagement where all members of our campus community feel valued and share a sense of belonging.
- People: Increasing the diversity of the faculty, other academic appointees, postdoctoral researchers, student body, professional staff, and senior leadership, giving these groups the support and resources they need to succeed.
- **Community:** Providing opportunities for meaningful scholarly, professional, and personal engagement with our community in a spirit of partnership and collaboration.

Under each pillar we identify several **Goals** followed by a set of **Tactics** aimed at achieving the stated goal. Some of these strategies are new, having been identified in the course of developing the Plan. Many of them, however, are not new, and their appearance here is a suggestion to continue to support that effort. Note the Strategic Plan is not a detailed implementation plan with specific steps to realize each idea. Instead, each tactic will be carried out by various stakeholders who will ultimately determine

the specifics of their execution, often with significant and evolving input from the community. For each tactic, a suggested set of oversight groups is indicated.

The remainder of this document includes a **summary of goals**, a detailed **list of tactics** for each goal, and a **glossary of terms and acronyms** that are used in this document.

Summary of Goals in the Physics EDI Strategic Plan

Infrastructure

- **Goal 1:** Cultivate a shared vision for equity, diversity, and inclusion in the Department of Physics.
- Goal 2: Expand communications around EDI activities and increase accountability for progress on EDI initiatives.
- **Goal 3:** Pursue resources specifically to support EDI initiatives.

Climate

- **Goal 1:** Ensure an inclusive professional and social climate in the department, welcoming to all students, faculty, and staff regardless of race, ethnicity, nationality, religion, gender expression, gender identity, sexual orientation, or disability status.
- **Goal 2:** Ensure an inclusive learning environment and programming in Physics that supports all students.
- **Goal 3:** Foster strong mentoring relationships between faculty and students and postdocs, which are critical to the creation of a positive, inclusive department environment.
- **Goal 4:** Support professional development opportunities for department staff members.
- **Goal 5:** Support and recognize efforts throughout the department that positively impact diversity and inclusion within the department.

People

Goal 1: Enhance diversity at all levels in the department through inclusive hiring/admission practices and active recruitment of students, postdocs, faculty, and staff.

Community

- **Goal 1:** Be a leader in providing STEM education opportunities and outreach to the University's local community (Hyde Park and surrounding neighborhoods).
- **Goal 2:** Support the local (Hyde Park, Chicago South Side) community.

Tactics

For each goal, several specific tactics are described below. Also indicated are the approximate *timeline*, which group(s) are responsible for *oversight*, and some *progress indicators* specific to each tactic.

Infrastructure Goal 1: Cultivate a shared vision for equity, diversity, and inclusion in the Department of Physics.

Tactics	Timeline	Oversight	Progress indicator
Incorporate input received from across the	Spring 2022	EDI Committee	Strategic Plan version
department directly into our EDI Strategic			approved and posted
Plan. Share drafts of the Plan among			online
stakeholders in the department and			
encourage feedback. Once approved by			
the department, circulate the Plan among			
members and post on the department EDI			
webpage.			

Maintain a Physics Department EDI Committee made up of faculty, staff, postdocs, graduate and undergraduate students to coordinate Departmental efforts related to diversity and inclusion.	ongoing	Dept. Chair EDI Committee	Successful filling of committee slots each year
Implement a strategy for including as many members of the department as possible in the execution of the Strategic Plan and the building of an inclusive department environment, leveraging existing student organizations.	Spring - Autumn 2022	EDI Committee Student groups	Hold workshops, town halls with stakeholders. Number of tactics assigned to groups for implementation.
Treat the Strategic Plan as a "living document" to be reviewed and updated at least annually.	each year	EDI Committee	Annual review and updates to the Plan
Develop a concise department EDI Values Statement and post to the EDI webpage.	<1 year, ongoing	EDI Committee	Approval of statement, webpage updated
Maintain (or link to) a glossary of terms and acronyms related to EDI topics.	<1 year, ongoing	EDI Committee	Existence of glossary in Plan, on webpage, or elsewhere

Infrastructure Goal 2: Expand communications around EDI activities and increase accountability for progress on EDI initiatives.

Tactics	Timeline	Oversight	Progress indicator
Review and update the Physics Department EDI webpage Conduct regular reviews reviews reviews <a box"="" comment="" edi="" for="" form="" from="" href="Conduct r</td><td><6 months for initial review and updating, ongoing thereafter</td><td>EDI Committee</td><td>Review + incorporation of new, updated content on EDI webpage</td></tr><tr><td>Put in place or locate tools to track EDI related metrics, such as community membership, climate survey results, etc.</td><td>1-2 years</td><td>Dept. Chair PSD Dean PSD DOS Admissions Committee</td><td>Ability to quantify changes and trends in metrics over time</td></tr><tr><td>Create and publish an annual Physics EDI report or newsletter.</td><td>Yearly summary</td><td>EDI Committee
PSD EDI Office</td><td>Plan for report,
assignment of
responsible parties for
individual sections,
creation of draft report</td></tr><tr><td>Develop a general strategy for advertising department EDI events; consider the roles of the EDI webpage, email, social media, etc.</td><td><1 year</td><td>EDI Committee</td><td>Implementation of tools for announcing and archiving events</td></tr><tr><td>Establish an anonymous, electronic " input.<="" linked="" or="" other="" receiving="" td="" the="" webpage=""><td><1 year</td><td>Dept. Chair EDI Committee</td><td>Existence of comment box, number of comments submitted, number addressed.</td>	<1 year	Dept. Chair EDI Committee	Existence of comment box, number of comments submitted, number addressed.
Hold student town hall sessions to solicit student feedback on departmental climate issues.	<1 year, ongoing	Dept. Chair EDI Committee	Number of town halls held each year, attendance at each
Invite faculty committees to present on activities and outcomes at community events such as town halls.	<1 year, ongoing	Dept. Chair	Number of faculty committee presentations each year.

Invite the PSD EDI Office to present at	<1 year, ongoing	Dept. Chair	Number of PSD EDI
town halls, Physics faculty meetings, or EDI		EDI Committee	Office invitations
Committee meetings.			

Infrastructure Goal 3: Pursue resources specifically to support EDI initiatives.

Tactics	Timeline	Oversight	Progress indicator
Advertise and encourage proposals to the inclusive climate grant programs in the PSD and University.	ongoing	Dept. Chair EDI Committee PSD EDI Office	Number of grant proposals submitted and funded each year.
Identify department members that can use some of their working time to contribute to and support EDI efforts and events.	~2 years	Dept. Chair	Numbers of people identified to support specific EDI tasks.

Climate Goal 1: Ensure an inclusive professional and social climate in the department, welcoming to all students, faculty, and staff regardless of race, ethnicity, nationality, religion, gender expression, gender identity, sexual orientation, or disability status.

Tactics	Timeline	Oversight	Progress indicator
Conduct department climate surveys and/or	~3 years	PSD EDI Office	Number of participants
work with the PSD on Division-wide climate		PSD EDICT	in the survey from
surveys.		EDI Committee	Physics; Survey results;
Create opportunities for department-wide	ongoing	EDI Committee	Number of events held;
engagement and dialogue around EDI issues.		Student groups	number of attendees at
			events
Continue to assemble a diverse group of	ongoing	EDI Committee	Number of speakers
speakers for the department colloquium		Colloquium	from URGs; number of
series. Include some EDI-focused colloquia		Committee	EDI-specific talks per
in the schedule each year.			year
Advertise and incentivize faculty and staff	ongoing	Dept. Chair	Number of faculty
participation in EDI trainings offered at the		and/or PSD Dean	trained; Number of
University.			training sessions
			available and held
Share EDI learning materials recommended	<1 year	EDI Committee	Number of links
by members of the University community			available on EDI
through links on the department EDI			webpage
webpage (<u>link</u> , <u>link</u>).			

Climate Goal 2: Create an inclusive learning environment and programming in Physics that supports all students.

Tactics	Timeline	Oversight	Progress indicator
Publicize and encourage instructors to utilize	~1 year	Dept. Chair	
resources and training available at the		Teaching Activities	
University Inclusive Pedagogy website.		Committee (TAC)	
Review and revise department teaching	~3 years	Dept. Chair	Getting direct
practices and resources in the context of		TAC	consultation with
accessibility to meet the needs of students			Students Disabilities
from diverse backgrounds and with different			Services office;
learning abilities or styles: Accommodating			inventory of physical
Students resource page.			spaces for learning
			and teaching (e.g.,
			maps and lists of

			technical installations in relevant spaces)
Create a model diversity and inclusion statement for courses in the department that instructors can use as part of course syllabi: Inclusive Teaching resource page .	~1 year	EDI Committee Dept. Chair	Model statement posted to the website and announced.
Strongly encourage and facilitate inclusive study groups, especially in the undergraduate introductory sequences.	ongoing	EDI Committee TAC	Number of courses implementing study group guidance; Number of study groups formed
Provide training regarding inclusive teaching practices, gender and racial bias, and recognizing and responding to microaggressions for graduate student TAs in the department. Check resources at the Chicago Center for Teaching (CCT).	ongoing	Dept. Chair	Number of TAs trained
Review degree paths offered in Physics (BA, BS, minor) and their curricular requirements in the context of EDI.	~3 years	TAC EDI Committee	Updates to paths and requirements
Provide additional instructional resources, such as the Physics and Math Tutoring Program or the Collaborative Learning courses in Chemistry, to assist students coming from a variety of math and physics backgrounds to succeed in introductory physics courses.	ongoing for some, ~2-3 years for new programs	Dept. Chair TAC	Monitor the participation in tutoring or other programs
Support a diversity of career paths for Physics majors and provide career information and guidance to assist undergraduate students in identifying a broad range of career opportunities, not just in academia. Support the continuation of existing initiatives in this area by SWiP and other groups.	1 year, ongoing	Dept. Chair Student groups PSD DOS UChicago Grad	Opportunities should be established with the help of the Department Chair and Alumni Relations Committee

Climate Goal 3: Foster strong mentoring relationships between faculty and early career scientists, which are critical to the creation of a positive, inclusive department environment.

Tactics	Timeline	Oversight	Progress indicator
Publicize mentoring <u>training and toolkits</u> available for faculty.	6 months	Dept. Chair	Faculty receive info via email, meetings, or website
Publicize mentee <u>training and toolkits</u> available for graduate students.	6 months	Dept. Chair	Students receive info via email, meetings, or website
Establish general mentorship standards for advisor-advisee relationships and encourage faculty to develop their own individual mentorship compacts including clear expectations for meetings, research, and work.	~2 years	Dept. Chair PSD DOS PSD EDI Office	Existence of a skeleton draft of a mentorship description; Number of faculty who have developed and provided mentorship descriptions.

Conduct periodic check-ins to ensure that mentoring relationships provide positive support to mentees.	~1 year	Dept. Chair	Check-ins conducted
Establish feedback mechanism regarding mentorship effectiveness and quality for research advisors, including remediation and protection from retaliation in case of negative feedback.	2-3 years, ongoing yearly review	Dept. Chair EDI Committee PSD	Feedback mechanism designed; progress should be measured each year based on feedback from students and mechanism can be tweaked
Publicize a program like the APS National Mentoring Community to connect URM undergraduate physics majors with faculty mentors.	1 year	Dept. Chair EDI Committee	Number of active student-faculty mentoring connections made
Develop a departmental mentorship program that pairs URM graduate students and postdocs with physics faculty, running parallel to research advisor-based mentorship.	~2 years	Dept. Chair	Existence of plan for program; Number of students participating in program; Number of faculty participating and trained; Number of meetings between students and faculty
Active communication to students on how and when to switch advisors in the case of scientific, mentorship, or other differences.	~2 years	Dept. Chair EDI Committee PSD DOS	Existence of a comment on this on the graduate student section of the website or inclusion of this topic in the grad student orientation discussion, etc.

Climate Goal 4: Support professional development opportunities for department staff.

Tactics	Timeline	Oversight	Progress indicator
Identify staff professional development	~2 years	Dept. Chair	Feedback of staff
needs, goals, and resources. Publicize available university resources such as the		Divisional EDI Staff Committee	members regarding development and
UChicago LinkedIn Learning modules.			support.

Climate Goal 5: Support and recognize efforts throughout the department that positively impact diversity and inclusion within the department.

Tactics	Timeline	Oversight	Progress indicator
Continue to support departmental groups such as WAGMiP, SWiP, LGBTQIA+ Physicists, REMiP, etc. Establish clear modes of communication between groups and the Dept/EDI Committee to solicit feedback and address needs.	ongoing, <1 year	Dept. Chair EDI committee	Number of people participating in the groups; Number of activities and events planned by these groups; Amount of Departmental funding support per year
Expand the categories of student recognition and awards to include contributions to	ongoing	Dept. Chair Fellowships and Prizes Committee	Diversify the categories of recognition, e.g.,

mentoring, EDI activities, department climate, etc.		coordinated with the PSD	mentoring, EDI activities; Number of awardees
Provide Departmental support to students who wish to participate in NSBP, SACNAS, and other events for URM scientists, as well as liaise with other organizations in planning.	<1 year, ongoing	Dept. Chair	Number of students participating in these events; Amount of Department funding provided for these activities; Number of events attended; Number of URM students applying or otherwise directed to Chicago as a result

People Goal 1: Enhance diversity in the department at all levels through inclusive hiring/admission practices and active recruitment of students, postdocs, faculty, and staff. (Note that the important issue of providing support and resources for success once here are largely addressed under Climate.)

Faculty Recruitment				
Tactics	Timeline	Oversight	Progress indicator	
Follow inclusive hiring practices, following	ongoing	Appointments	Crafting of Search	
the University's <u>recruitment guidelines</u> ,		Committee	Plan. Hiring	
including the Academic Searching and		Faculty Excellence	outcomes.	
Screening Policy.		Committees		
		Dept. Chair		
Ensure Search Committee and Appointments	ongoing	Dept. Chair	Involved faculty	
Committee members have completed Faculty			members have been	
Search Training.			trained.	
Identify and engage a diverse pool of early-	ongoing	Faculty Excellence	Number of	
career potential candidates, curating		Committee	applications solicited	
connections over multiple years.		Search Committees		
Evaluate use of the Provost's Postdoctoral	~1 year	Faculty Excellence	Discussed and	
Fellowship Program in Physics.		Committees	outcomes reported	
		Appointments		
		Committee		

Graduate Student Recruitment			
Tactics	Timeline	Oversight	Progress indicator
Equip and prepare members of the Admissions Committee with the tools and information necessary to conduct a holistic evaluation of candidates, ensuring that the structure of the admissions process does not disadvantage populations of students. Pursue Graduate Student Recruitment Training for Committee members and other faculty evaluating applications.	~1 year	Admissions Committee in partnership with UChicago Grad, Provost's Office	Number of implemented historical data tracking mechanisms; Updates to rubric for admissions rankings; Number of faculty trained to perform holistic admissions evaluations
Consider any unintended barriers to the application process for attracting a diverse group of applicants (fees, exams, etc.) and develop strategies to mitigate them (e.g., waive fees, review role of exams).	~1 year	Admissions Committee Dept. Chair	Number of factors considered and actions taken

Perform an annual review of admissions procedures and outcomes to identify ways to continually improve the process.	ongoing	Admissions committee	Preparation of review structure; suggestions and lessons learned acted on.
Continue a dedicated recruitment effort for admitted graduate students.	ongoing	Recruitment Committee, Partner with current students and student groups	Graduate student yield and diversity of matriculated students
Pursue partnerships and leverage recruitment initiatives at minority serving institutions and other institutions with diverse populations, with the goal of broadening the pool of URM applicants to the PhD program.	~1 year	Dept. Chair EDI Committee PSD EDI Office GRIT	Review number of ongoing partnerships and outcomes each year.
Explicitly communicate (e.g., via website or personal communication with students) how PhD student funding works at UChicago.	ongoing	Dept Chair Director of Graduate Studies Admissions Committee	Clarification of funding possibilities on website; Identification of funds; Description of funding guarantees and where they exist; Number of students funded.
Evaluate the merits of a Physics Bridge Program to provide post-baccalaureates with research experience, advanced coursework, and mentoring to prepare them for the PhD program in Physics.	~2 years	Dept. Chair EDI Committee PSD	Internal review of existing feedback and information regarding Bridge Program history and options. Liaise with PSD to evaluate future program implementation.

Undergraduate Student Recruitment			
Tactics	Timeline	Oversight	Progress indicator
Work to identify and mentor prospective physics majors early, in particular students from URGs in Physics.		Dept. Chair	Number of new majors identified and set up with mentors
Support student organizations in their outreach to new students and URG/URM students.	ongoing	Dept. chair	
Increase summer research opportunities and funding for undergraduates. Especially encourage students from URGs to apply for these opportunities.	ongoing	REU Committee Dept. Chair PSD, College	Number of students in research in the dept.
Promote existing REU/SULI programs and organize application assistance. Especially encourage students from URGs to apply for these opportunities.	ongoing	REU Committee EDI Committee Student groups	The REU Committee will facilitate the communication and recruitment of students for the REU program. SWiP has compiled lists of summer and academic year research opportunities that should be more actively advertised.

Postdoc Recruitment				
Tactics	Timeline	Oversight	Progress indicator	
Advertise all the physics-connected postdoctoral fellowships in a unified way on the department website.	ongoing	Dept. Chair	On the website	
Apply a holistic evaluation of fellowship		Fellowship		
candidates, as for graduate applications.		Committees		

Community Goal 1: Be recognized as a leader in providing STEM education opportunities and outreach to the University's local community (Hyde Park and surrounding neighborhoods).

Tactics	Timeline	Oversight	Progress indicator
Continue to support the many existing and new education and outreach programs hosted by members of the department, in particular those that serve underrepresented communities around the University. Use the department <u>outreach webpage</u> to promote programs and advertise events to the community. Check annually in the spring to ensure the list is current and links point to that year's program pages. Leverage University organizations such as <u>NSP</u> and <u>OCE</u> to further publicize events.	ongoing	Dept. Chair EDI Committee	Number of students participating in programs each year.
Communicate avenues for getting involved with outreach activities within the department. Identify financial and personnel resources (e.g., faculty, staff, and students) to support outreach activities sponsored by the department.	<1 year, ongoing	Dept. Chair EDI Committee	List created with current outreach efforts, communicated to department members.

Community Goal 2: Support the local (Hyde Park, Chicago South Side) community.

Tactics	Timeline	Oversight	Progress indicator
Identify the needs of the local community by collaborating with UChicago partners such as the PSD, NSP, and the Provost's Office.	1 year, ongoing	EDI Committee Dept. Chair	Connections with UChicago partners, number of needs identified.
Encourage support of local and minority- owned businesses and organizations in carrying out department events.	1 year, ongoing	EDI Committee Dept. Chair PSD Development Office	Identify list of local organizations/businesses, # of community contacts
Encourage department faculty members to apply for federal grants for community efforts.	1 year, ongoing	EDI Committee Dept. Chair PSD Dean's Office	Number of faculty applying for grants; frequency of reminders to faculty about opportunities.
Continue to provide space for hosting community and outreach events in the department (e.g., science competitions for local middle/high school students, etc.).	1 year, ongoing	Dept. Chair	Number of events hosted each year.

Glossary of terms and acronyms

Equity: is ensuring that access, resources, and opportunities are provided for all to succeed, especially those who are currently underrepresented. Creating equity involves working to identify and eliminate barriers that may be preventing the full participation of some groups.

Diversity: includes all the ways in which people differ and encompasses the full range and variety of people's experiences, opinions, values, cultures, identities, and backgrounds. Common examples of identities include race, ethnicity, nationality, gender, sexual orientation, religion, socioeconomic status, or disability status. We also recognize that individuals may affiliate with multiple identities.

Inclusion: is the act of creating an environment that is welcoming to all people and where individuals are respected, supported, and able to reach their full potential.

URG - underrepresented group: URGs include those who may be marginalized by race, ethnicity, age, color, disability, faith, national origin, gender identity, gender expression, sexual orientation, socioeconomic class, under-resourced backgrounds, or other identities represented in our community.

URM - **underrepresented minority:** URM is a more specific term than URG and refers to racial and/or ethnic populations in the US that are historically underrepresented in the sciences relative to their numbers in the general population. Consistent with the definition currently used by the National Science Foundation, we consider URM to include people who identify as Black, African American, Hispanic, Latino, American Indian, and/or Alaska Native.

Dept. Chair: Chair of the Physics Department and their office, including all their staff members and resources at their disposal

EDI Committee: Equity, Diversity & Inclusion Committee within the UChicago Physics Department

EDICT: Equity, Diversity and Inclusion Coordination Team within the Physical Sciences Division

GRIT: UChicago Graduate Recruitment Initiative Team

HBCU: Historically Black Colleges and Universities

HSI: Hispanic-Serving Institutions

Karsh Scholars: Students within Howard University's Karsh STEM Scholars Program

LGBTQIA+ Physicists: Departmental group for students, postdocs, faculty, and staff who identify as part of the LGBTQIA+ community

NSBP: National Society of Black Physicists

OCE: Office of Civic Engagement at UChicago

NSP: Neighborhood Schools Program at UChicago

PSD: Physical Sciences Division

PSD DOS: Physical Sciences Division Dean of Students and their office

REMIP: Racial and Ethnic Minorities in Physics

REU: Research Experience for Undergraduates

SACNAS: Society for Advancement of Chicanos/Hispanics and Native Americans in Science

SULI: Summer Undergraduate Laboratory Internship, a 10-week paid summer research opportunity at National Labs

SWiP: Society of Women in Physics, a Registered Student Organization for women-identifying undergraduates at UChicago

TAC: Teaching Activities Committee within the UChicago Physics Department

WaGMiP: Women and Gender Minorities in Physics graduate student group