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P5 Town Hall at SLAC
4 May 2023

Climate of the Field

Slides are text-heavy.
PDF & [Google Slides](#) available online to review in detail.
Climate of the Field paper: [arXiv/2204.03713](https://arxiv.org/abs/2204.03713)



I'll leave you with this take-home: “Diverse perspectives yield the best science” is a true statement, but it’s one that commodifies the lived experience of marginalized people by reducing them to their contributions to productivity.

It’s a capitalistic framework that shirks the basic truth that cultivating a field where the norm is respecting the humanity and validity of all people is the right thing to do for no reason other than that it is right.

If this is not enough of a justification for you, you are the problem.

#BlackInAstro Experiences: KeShawn Ivory

<https://astrobites.org/2020/06/19/black-in-astro-keshawn-ivory/>

The Climate of Physics Needs Work

Since 1995 the percentage of bachelor's degrees earned by African-American students has more than doubled. The overall number of bachelor's degrees awarded in physics is also the highest it has ever been. Yet, across several fields, physics has shown the largest decrease in bachelor's degrees earned by African-American students¹.

A 2017 study of astronomers/planetary scientists² found:

- 35% of women of color had experienced verbal harassment related to their race,
- 44% of women of color and 43% of white women experienced verbal harassment related to gender, and
- 18% of women of color and 12% of white women reported skipping at least one professional event because they did not feel safe attending, a huge loss of professional opportunities due to hostile climate.

Survey by the APS Ad Hoc Committee on LGBT+ Issues³ found

- >50% of gender-nonconforming physicists and >50% of transgender physicists have observed exclusionary behavior,
- ~50% of transgender physicists have experienced exclusionary behavior, and
- women respondents experienced exclusionary behavior at three times more often than men.

1. AIP National Task Force to Elevate African American Representation in Undergraduate Physics & Astronomy (TEAM-UP). January 2020

2. Clancy et.al. Journal of Geophysical Research: Planets, 2017

3. APS Ad Hoc Committee on LGBT+ Issues March 2016

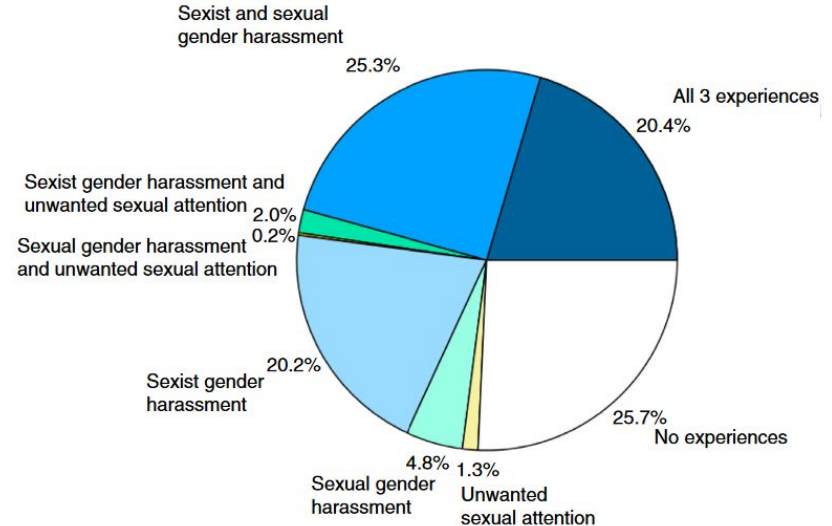
The Climate of Physics Needs Work

National Academies of Sciences, Engineering, and Medicine (NAEM) Report on the Sexual Harassment of Women (2018) ¹:

- ◉ 58% of women academic faculty/staff reported sexual harassment.
- ◉ 20-50% of women students reported sexual harassment.

Survey of APS CUWiP participants ² found

- ◉ 74% of undergraduate participants experienced some type of gender harassment or unwanted sexual attention in physics in the previous two years.
- ◉ Sexist gender harassment had a significant effect ($p < 0.001$) on increasing negative sense of belonging, even in those who are expected to have high discipline-specific belonging.



1. Johnson et.al. National Academies Press 2018
2. Aycock et.al. Physical Review Physics Education Research 2019

Aspiration vs. Action

For Whom it May Concern

THIS STOPS NOW

This is not who we are and aspire to be as a society of talented professionals/intellectuals

Given our collective aspiration it is hard to see how those who may continue to speak and behave inappropriately have a future in nuclear science

The message is simple: treat all people with the same dignity and respect you expect to be treated with yourself and “keep it professional”.

Who does it concern? Who has the power to make changes?

This isn't who we aspire to be, but at the moment evidence suggests *this is who we are*.

Who decides what is “inappropriate”?
How do we stop this behavior and/or remove this behavior from the field?
Who has the power to do this?

“Keep it professional” only works if we collectively agree what “professional” means.

The Climate of HEPA Needs Work

It **does** happen in HEP!

It **does** happen in HEP collaborations!

It **does** happen at national labs!

- If you think that misconduct is not happening in your collaborations and communities, it is solely because **no one has talked to you about it**, and not because your specific community is exempt.
- The impact of sexual harassment and intimidation can be prevented with stronger **systemic** protections within national labs and within HEP collaborations.

Former UCL academic to pay damages after harassing colleague for months

Christopher Backhouse falsely portrayed Erica Smith as a sex worker and signed her up for far-right groups and fetish websites



University College London. Photograph: peterspiro/Getty Images/iStockphoto

Smith, who worked on an international research project with Backhouse at Fermilab, a collaborative research lab in the US, had previously reported Backhouse alleging sexual assault, according to the statement. However, no finding of fact was made against him.

<https://www.theguardian.com/education/2022/oct/12/former-ucl-academic-to-pay-damages-after-harassing-colleague-for-months>



We must remember that problems of inequity in our field will not solve themselves, and that we will have to confront them head-on, every day, likely well into the future.

Addressing inequities and injustices makes for better physics.

More than that, it is simply the right thing to do.

Climate of the Field: Snowmass 2021

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Recommendation 1.0:

HEPA communities must employ the use of robust strategic planning procedures, including a full re-envisioning of science workplace norms and culture.

Recommendation 2.0:

HEPA communities must implement new modes of community organizing and decision-making that promote agency and leadership from all stakeholders within the scientific community.

Recommendation 3.0:

HEPA communities must engage in partnership with scholars, professionals, and other experts in several disciplines, including but not limited to anti-racism, critical race theory, and social science.

Adapted from Brian Nord et al. *Culture change is necessary, and it requires strategic planning*. Snowmass 2021 LOI.

https://www.snowmass21.org/docs/files/summaries/CommF/SNOWMASS21-CommF1_CommF6_brian_nord_new-056.pdf

Institution Policies in Practice: Designed to serve institutions, not people

Is it a violation?

Harassment can be written off as interpersonal disputes.

Who do whisper networks protect?

Junior scientists or those of minoritized identities attempt to protect themselves — but who is left out?

Who is responsible for handling reports?

Institutions within HEP have repeatedly denied responsibility if a victim was not an employee / user, even when their campus or members were directly involved.

HR staff have shown that they protect the institutions¹⁻⁸. Who protects users / employees / visitors?

How do institutions communicate?

They don't. Personnel reports are not shared between institutions.

Greatest predictors of occurrence of sexual harassment⁹:

1. Perceived risk to those who report sexual harassment
2. Lack of sanction against offenders
3. Perception that a report will be taken seriously.

⇒ If we don't take reports seriously, if we don't act upon them, harassment will continue to flourish.

Instead, we must develop systemic policies that go beyond symbolic legal compliance.

1. Peirce et. al. Academy of Management Executive, 12:41–54, 1998.
2. Greenfield. Bloomberg, 2017.
3. Trump. Otago Daily Times Online News, March 2022.
4. Panzer. Synapse, March 2019.
5. Technical report, National Crime Victim Law Institute, May 2015.
6. Novacic + Mooney. CBS News, November 2019.
7. Anderson. Inside Higher Ed, August 2020.
8. Martin. Medium, March 2020.
9. Johnson et.al. National Academies Press 2018

Collaboration Systems: The best of efforts are not mitigating harm

Some collaborations have begun instituting Codes of Conduct and DEI initiatives, and we'd like to highlight the following:

- LZ has regular check-ins for those at the collaboration-managed living spaces.
- IceCube brought in CSCCE fellow for Code of Conduct development, and members must actively acknowledge the code before registration at meetings.
- NOvA developed code specifically with victim-advocacy in mind.
- LZ, IceCube, nEXO have external speakers at collaboration meetings (incl. experts)
 - Strike for Black Lives ¹⁻³
 - Working with the local indigenous communities
 - Addressing historical inequities in student performance
- nEXO ombuds are formally trained by the IOA ⁴
- SuperCDMS has procedures in place to review their code and address gaps.
- SuperCDMS climate survey developed by an organizational psychologist to examine: are working groups functioning, are affiliates receiving appropriate and timely feedback, is the culture working for junior members?



1. Particles for Justice. <https://www.particlesforjustice.org>.
 2. #ShutDownAcademia #ShutDownSTEM. <https://www.shutdownstem.com>.
 3. #VanguardSTEM. <https://www.vanguardstem.com/>.
 4. International Ombuds Association — Home. <https://www.ombudsassociation.org/>.

Common Themes and Pitfalls of Collaboration – Developed Codes

Collaborations have very little legal power.

- Are spokespeople / executive boards protected from potential legal action?
- **How do you enforce removal from a collaboration?**

Funding agencies must advise collaborations on matters relating to

- mandatory reporting,
- academic misconduct, and
- the coverage gaps between agencies, institutions, and countries.

Players lack systemic power.

You have a code of conduct and an ombuds and a “DEI committee”... now what?

What power does the DEI committee have to

- Take and investigate reports?
- Enforce code of conduct sanctions?
- Institute policy decisions that affect the collaboration (e.g. authorship)?

Code of conduct without power?

⇒ **Institutional betrayal**¹

“Ombuds” / “EDI chair” is a full time role.

There are too few people in a collaboration with seniority, approval, and protection from retaliation...

⇒ *Can they add “victim advocate” to their schedule?*

- Are advocates trained?
- Are they asked to supervise all DEI programming?
- Are we asking people from minoritized groups to do all this work?
- **Are we rewarding these people with more than praise?**

1. Freyd (U Oregon) <https://dynamic.uoregon.edu/jjf/institutionalbetrayal/>

Common Themes and Pitfalls of Collaboration – Developed Codes

Efforts to address misconduct should be victim-centered.

Harm to a collaboration affiliate is harm to the collaboration and to the community.

Goal: To resolve the misconduct such that the reporter is fully reintegrated into the community.

Mediation should never be forced or coerced.

Victims should never feel as if they are forced to accept an apology.

Restricting access between perpetrator and reporter does not make the reporter whole.

Do collaborations have trained victim advocates available?

Commitment to DEI is an ongoing, all-inclusive process.

Codes of conduct must do more than “check the requirements box”. ⇒ Active, sustained commitment to collaboration culture.

Codes of conduct should be introduced as part of onboarding, and should be regularly reviewed.

Is everyone included in the code of conduct?

Technicians / engineers / IT specialists?

Is the code of conduct all-encompassing? Are our platforms (e.g. Slack) compliant with the standard we are setting for our community?

The knowledge already exists.

We did not invent these ideas, and we are not the most well equipped to do so.

Collaborations should set aside money for experts to speak on these issues. Larger networks should be established to share best practices and push forward changes in culture.

Hire. Experts.

Common Pushbacks to DEI Efforts



Comments from literature or were experienced by the authors, and some responses.

Maya L. Gosztyla et al. Responses to 10 common criticisms of anti-racism action in STEM. PLOS Computational Biology, 17(7):1–24, July 2021.

Refusing the responsibility

“Why can’t we just do physics?”
 “Other people are solving the problem”
 “I’m not doing anything bad, I’m off the hook”

- **“Not acting” is a choice.** If you elect not to act, you are acting against the moral imperative to engage.
- Other people aren’t doing the work, or if they are, ***they are not paid a fair wage to solve our community problems.***

Denial of the Problem

“We’re all good people”
 “We know how to behave appropriately”
 “I’ve never heard of this happening”

The data does not support this.¹⁻⁹
 If you think that misconduct is not happening in your collaborations and communities, it is solely because no one has talked to you about it, and not because your specific community is exempt.

Deferral to existing standards

“We already have rules against this.”

We should expect our communities to do more than the bare minimum legally required.
We expect our communities prioritize the safety and well-being of our members *even over scientific output.*

“If you do not experience systemic racism, you are likely benefiting from it, whether by being more generously supported by your institutions, being assumed to belong, or, importantly, not bearing the significant mental and emotional burden of being subjected to racism.”

1. TEAM-UP Technical report, American Institute of Physics, January 2020.
2. NASEM. Sexual Harassment of Women National Academies Press, Washington, D.C., 2018.
3. Aycock et al. Phys. Rev. Phys. Educ. Res., 15:010121, 2019.
4. Clancy et.al. Journal of Geophysical Research: Planets, 122(7):1610–1623, 2017.
5. Ford. The Journal of Higher Education, 82(4):444–478, 2011.
6. Ford et.al. Nature, 576(7785):32–35, December 2019.
7. Sue et.al. Professional Psychology: Research and Practice, 39(3):329–336, 2008.
8. Griffin et.al. American Journal of Education, 117(4):495–526, 2011.
9. Technical report, Pew Research Center, January 2018.

Common Pushbacks to DEI Efforts



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Minimizing the Actual Harm

“Cancel culture” / “Political Correctness”
 “They didn’t mean it like that”
 “They didn’t intend to hurt you”

Why do we systematically devalue the experiences of our colleagues when they tell us what is happening to them?

“Did the perpetrator intend to harm?”

⇒ “What impact does this have on the target?

On their job prospects? What can we do to prevent this in the future?”

Himpathy: the excessive sympathy shown toward male perpetrators of sexual violence.

Kate Manne “Down Girl: The Logic of Misogyny” (2018)

Denying Responsibility for Activism

“We’re changing already, isn’t that enough?”
 “These changes take time”
 “I don’t have time to do anything.”

- This is not a generational problem.
- There *are* changes ongoing. Let’s actively support them!
- The authors of this paper also didn’t have time to do this work. But it was too important not to.

We call on all academics who identify with at least one majoritized identity (that is: white, able, male, cisgender, and heteronormative identities) to move past passive allyship and instead take up the mantle of “accomplices” against racism, sexism, and other forms of harassment and discrimination.¹

1. Harden-Moore and Harden. Diverse: Issues In Higher Education, March 2019

Collaboration Systems: Handling Misconduct

Possible sanctions...	... and problems with each.
Leadership discussions with perpetrator	<ul style="list-style-type: none"> • Good! So long as the discussions are productive and result in demonstrable changes. • Difficulty increases with power dynamics
Expert-led mediation	<ul style="list-style-type: none"> • Collaborations do not have mediators on hand, and do not have the \$\$ to hire one. • Mediation by leadership \Rightarrow conflict of interest • Mediation by physicists \Rightarrow harm to the reporter
Temporary or permanent removal from in-person meetings	<ul style="list-style-type: none"> • Who investigates? Who decides what rises to the level of ejection from the collaboration?
Temporary or permanent removal from author lists	<ul style="list-style-type: none"> • Who acts as victim advocates?
Removal from the collaboration	<ul style="list-style-type: none"> • Does removal result in financial or intellectual threat to the perpetrator? Could this be the basis of a lawsuit?

Today's

event:

Any issues can be brought to the confidential attention of the organizers... Attendees violating these rules may be asked to leave the event at the sole discretion of the organizers.

Who would enforce this? Who would do the investigation? Would there be follow-up with a participant's institution in the case of egregious behavior?

Who has the authority?

Collaboration Systems: Handling Misconduct

National labs might be the only legal entity that collaboration affiliates share.

Would they investigate?

- Policies are not consistent between labs.
- Investigations of harassment should not rely on the generosity of a particular institution.
- Victim should not have to worry about
 - Where they are employed
 - Where the perpetrator is employed
 - If the event happened during meeting hours or after-hours
 - If the event happened on a national lab campus

Not necessarily true for smaller collaborations / working groups. Also not necessarily true for non-experimentalists or non-scientists.

Victims of misconduct should not be falsely led to believe that these codes will actually protect them.

So far, this system is designed to fail.

For example:

Graduate Student
From Univ A

Faculty speaker
From Univ B

Summer School
@ National Lab

Funded by NSF / DOE

Collaboration Systems: Communicating Findings, and a Comment on Legality

- If an affiliate is sanctioned by the collaboration, can / should the collaboration make this public?
- If the collaboration “goes public”, can an affiliate sue for defamation?
- Are leadership open to legal liability, especially if sanctions impact the financial or physical security of an affiliate?

Can collaborations enforce codes of conduct without opening themselves to lawsuits? Probably not.

“If a community cannot hold the most powerful people in the community accountable to the code of conduct, it is best not to adopt a code of conduct at all.”

How to Respond to Code of Conduct Reports (2019)



“Pass the harasser”: If collaborations / institutions cannot publicly disclose violations, the perpetrator can go elsewhere and continue their behavior.

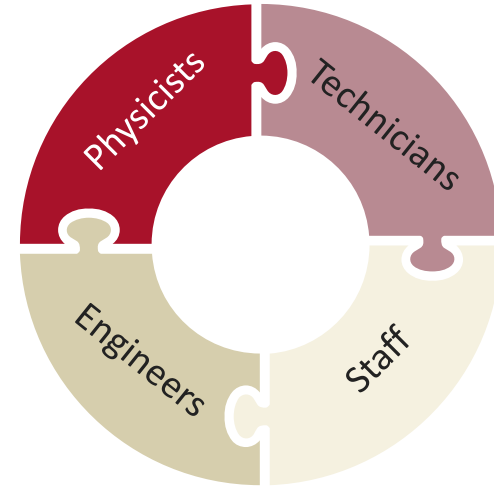
It is naive to believe that collaborations / institutions / leadership who fail to protect their most vulnerable members would not open themselves up to litigation from victims.

Scientists & non-Scientists: Participatory Injustice

Young technicians, engineers, operators, and physicists will experience very different levels of support, inclusion, mentorship, recognition, professional development, and opportunities of all kinds over their careers, and this divide continues and its cumulative effects multiply over the years.

“Essential” technical and operational staff often found themselves vitally needed and completely forgotten at the same time.

There are times when certain “scientist”/ “non-scientist” distinctions are important and useful; but there are other times when this artificial caste system mainly serves to hurt communication, productivity, and morale.



Who is purposefully included?

- Email lists
- Slack / Communication platforms
- Authorship
- Social events
- Codes of Conduct

Equity in information sharing / HEPA software

Documentation is often the last thing to be written, and it's often written by affiliates who

- Did not write the code in the first place
- Have no training in education / documentation pedagogy

*"[I was told] I'd pick it up as I go.
That was terrible advice."*

Software is written by a core group of experts with wealth of knowledge and expertise.

Knowledge filters down to new affiliates

Improvements in real time.

Knowledge filters through nearest-neighbors.

- Barriers to knowledge are exacerbated for minoritized groups
- Favors junior scientists that are comfortable with the risks of asking for help.
- Favors those with connections to the original experts

"If I don't understand the software I'm using, am I a credible scientist?"

"I've spent 2 years figuring out how this software works. Is this all there is to physics?"

Equity in information sharing / HEPA software

Recommendations:

- **Engage with researchers in software development and information transfer pedagogies.**
- **Hire scientific writers to produce better documentation and training modules.** “In-house” production isn’t working, and professionals who are not burdened with analyses would do a much better job.
- **Regularly re-evaluate what parts of the analysis workflow are “services” and what would be left to analysts.**
 - Does it benefit analysts to rerun their simulations every time there is a correction?
 - A “greener” computing model suggests centrally-produced, made-to-order simulations
 - What can we standardize to decrease the onboarding complexity for new analysts?
 - New analysis arrive with knowledge (CS classes, data science experience, etc). How do we leverage this?

6 C’s of Onboarding (Bauer, Portland State)



Compliance



Clarification



Confidence



Connection



Culture



Checkback

Throughlines and Additional Topics: Expertise and Compensating Experts

Physicists should not be doing the job of organizational psychologists and DEI experts.

When we do ask our community members to do this work, and they are not given proper recognition or respect.

- The work of DEI bodies tends not to be implemented, and the members of these groups are not rewarded in a professional capacity.
- DEI work is currently considered “service” and a “distraction” from the “real work” of research, instead of a critical and necessary component of the job.
- These “service” activities are shouldered by underrepresented groups and early-career scientists, and it negatively impacts their professional advancement.

AND doing this work without expertise can harm the populations we’re trying to protect!

Expertise should be considered a mandatory part of policy development

Throughlines and Additional Topics: Diversity in Leadership and Representation

How are affiliates trained and selected for leadership?

What are the short- and long-term repercussions of this choice?

- Leadership of working groups
- Assignment of “Nature-worthy” thesis topics
- Selection for seminars of results announcements
- Collaboration leadership / press relations

Recognition of junior affiliates is directly reliant on power dynamics with senior colleagues.

- Are grad students from big universities getting all the results papers?
- Are faculty from undergraduate-focused universities given leadership roles?
- Do we account for race / gender / disability / etc when developing leadership structures?

Organizational psychologists and sociologists can help us better address hiring, leadership, and opportunity disparities and move toward more equitable advancement.

“Meritocracy” is a myth.

It was coined as a *satirical* term to describe a society which appeared to be equitable but systematically disenfranchised minoritized populations by restricting their access to education and, therefore, upward mobility ^{1,2}.

Success depends strongly on external factors including but not limited to race, gender, socio-economic class, and disability.

Stress of these factors on BIPOC researchers, for example, has been associated with illness and reduced productivity ³⁻⁵, which furthers them from whatever we’ve decided “merit” means.

1. Maya L. Gosztyla et al. PLOS Computational Biology, 17(7):1–24, July 2021
2. Michael Young. The Guardian, June 2001.
3. Eagan Jr. and Garvey. The Journal of Higher Education, 86(6):923–954, 2015.
4. Williams. Journal of Health and Social Behavior, 59(4):466–485, 2018.
5. Zivony. Nature Human Behaviour, 3(10):1037–1037, October 2019

Collaboration Services Network at Host Labs

Host labs can be assigned responsibility for services for their collaborations, including

Level	Topic	Details
Collaboration	Training	Group / personnel management, accessibility, best practices for hosting events, conflict resolution.
Collaboration	Reporting Inbox	Extend existing structures to include users
Collaboration	Personal conflict resolution	Mediation professionals
Community	Hosting Resources	Avoiding word-of-mouth transfers, access to open source living / evolving documents
Community	Investigation and adjudication	Impartial and independent bodies to resolve incidents, and can interface with professional societies.
Community	Ombudsperson training	If we insist on exiting collaboration affiliates being ombuds, they should be trained on victim advocacy and avoiding secondary trauma.
Community	Climate surveys	Site visits and community climate surveys should be facilitated at the funding level, and might be prohibitively expensive (if done right) for collaborations independently.

Advised
By
Experts

Reports from Other Groups

Fusion Energy Sciences Advisory Committee (FESAC)

- ◉ **Subject matter experts in issues relating to inclusion, diversity, and climate.**
Experts should spearhead the design and development of tools to assess the climate of the community on a regular basis, and can provide expert recommendations which should be implemented.
- ◉ Development and publication of **new policies and codes of conduct** which apply to and are reiterated at all technical meetings.
- ◉ **Bias and cultural competency training** for program managers and primary investigators of funded projects.

National Academies of Sciences, Engineering, and Medicine (NASEM)

- ◉ While the legal framework is essential, **proactive efforts are needed** to create diverse, inclusive and equitable environments.
- ◉ Reduction in the following aspects of STEM workplaces which limit career prospects for targets and bystanders:
 - the dependence on advisors and mentors for career advancement;
 - system of meritocracy that does not account for the declines in productivity and morale as a result of sexual harassment
 - the need for informal communications networks (“whisper networks”)

National Academies Decadal Survey on Astronomy and Astrophysics 2020

- ◉ **Zero tolerance policy** for those who abuse either their position, their colleagues, or both.
- ◉ NASA, NSF, DOE, and professional societies should ensure that their scientific integrity policies address harassment and discrimination by individuals as forms of **research/scientific misconduct**.
- ◉ Funding agencies should implement a working group for **collecting, evaluating, and publicly reporting demographic data** pertaining, at a minimum, to outcomes of proposal competitions.

Reports from Other Groups

AIP Task Force to Elevate African American Representation in Undergraduate Physics & Astronomy (TEAM-UP)

Departments should...

- ◉ establish clear rules of engagement.
- ◉ **periodically assess departmental climate with help from outside experts.**
- ◉ **diversify their faculty** with respect to social identities in such a way that support of minoritized students is provided by multiple faculty of varying identities.
- ◉ adopt practices that encourage faculty, including those who are not members of minoritized groups, to **formally and informally mentor students.**

LGBTQ Climate Report (APS)

- ◉ **APS should lobby federal funding agencies** to include LGBT demographics in STEM education and workforce surveys and to acknowledge a pressing need to address climate issues for LGBT people in STEM fields.
- ◉ **APS should develop a training program on inclusive workplace and mentorship practices** for physicists in academia, national labs, and industry that incorporates the needs of LGBT physicists and aims at the recruiting of active allies.

LGBTQ Climate Report (IOP)

- ◉ **Improve visibility of LGBT+ or accomplice senior leaders and managers.** Decision makers need to consider LGBT+ needs for policies and procedures development.
- ◉ **Review and improve policies** regularly to ensure that there is top-down guidance from management.
- ◉ **Introduce and improve training** in all work environments including practical and bystander intervention training.

Recommendation 1.0:

HEPA communities must employ the use of robust strategic planning procedures, including a full re-envisioning of science workplace norms and culture.

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https://www.snowmass21.org/docs/files/summaries/CommF/SNOWMASS21-CommF1_CommF6_brian_nord_new-056.pdf

Formal recommendations from funding agencies for handling violations of codes of conduct.

Collaboration services @ host labs to provide communities with advice, training, tools, resources & funding.

Dedicated DEI Office to work with program officers to prioritize funding decisions & develop review processes.

Funding agencies facilitate data-driven, expert-driven Community Studies including

Demographics on grant proposals & funded grants.

How community leadership is selected
Power dynamics within communities
Onboarding & mentoring
Service work expectations
Equity in information sharing

Communities & Institutions develop effective reporting mechanisms and sanctions for egregious behavior.

Communities & Institutions evaluate policies for inequities harming marginalized groups.

Support & engage with existing subject matter experts, support structures, & informational networks.

Prioritize community-related issues at the funding level.

Recommendations in Snowmass CEF03 report driven by Climate white paper

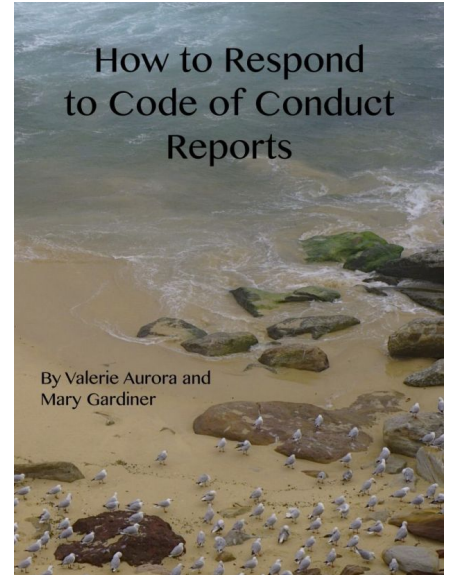
Acknowledgements

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These letters are listed here (by author-order):

- Assamagan, K.A., et al. (2020a) 'Climate of the field.'
- Assamagan, K.A., et al. (2020b) 'Educational resources for the community.'
- Assamagan, K.A., et al. (2020c) 'Recruitment, evaluation, and recognition.'
- Back, A., et al. (2020) 'Community support for enforcing collaboration codes of conduct.'
- Bard, D. and Bellis, M. (2020) 'The effect of HEP software culture and practices on diversity, inclusion, and retention.'
- Buuck, M., et al. (2020) 'Creating inclusive collaborations.'
- Nord, B., et al. (2020) 'Culture change is necessary, and it requires strategic planning.'
- Palladino, K. (2020) 'A need for alternative collaborative means to address misconduct.'
- Pronskikh, V. and Meehan, S. (2020) 'Engineering roles and identities in the scientific community: towards participatory justice.'

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QUESTIONS?



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The Climate of HEPA Needs Work

In 2019, 88 NP-supported students received their Ph.D.'s. Only 5% were Black or Hispanic, nearly a factor of 7 below representation in the US population.

-- Tim Hallman, NSAC Meeting 3/18/21



At right: Participation in the Snowmass Community Summer Study

