Faculty Diversity and Representation:

- 6 new faculty, none have been women
 - For women considered as candidates, were they examined objectively?
 - If a disproportionately low number of women were considered as candidates, why? Was the recruiting process the problem?
 - Why do the women who are considered not come? culture / support problems?
 - Is this an attractive department for women of color to work in? Good woman candidates might go elsewhere since it's not a good environment.
 - From Alexei during SUPA meeting:
 - No training required for the hiring committee
 - Candidates are mostly selected for their research, and their teaching abilities are not really evaluated.
 - The candidate does give a colloquium and that's the opportunity to show their teaching abilities.
 - Grad/undergrad students not represented on search committee

Solution and future action

- Was the evaluation held to the same standard across groups?
- A review of hiring procedures and decisions that led to this
- Overhaul of procedure for future hiring committees for faculty/postdocs/grad students to actively address this issue.
- More transparency of the hiring process with grad students
- Candidates have separate meeting with students and explain their research/teaching and mentoring philosophy in a way that the students can understand to see how much effort they put in undergraduate/graduate teaching/mentorship.
- Take advantage of the ACES fellowship
 - Problem is if someone is doing research as well as diversity then they won't be able to devote enough time to the job. (hence the reason for DEI officer)
- o Graduate representation on the grad faculty admissions committee.
 - give \$\$ -> TA/ RA replacement.
 - Need the time and support.

Climate and General Wellbeing:

Classes past 5 pm

- Move the time of required classes to during the day (as opposed to the evening) to accommodate students with families.
- It is recommended across 3 academy reports to schedule around a standard work day
- Theory 1 -> outside of hours, QM1, QM2, and cosmology are big offenders
- Important for DEI efforts

Work/Life Balance

- Many grad students feel pressure from their advisors to work an unreasonable amount of hours. Working on weekends or after hours needs to be disincentivized
- students are disincentivized from participating in groups and events that could take away from research work such as SUPA, DEEP, and GSA
 - Groups such as SUPA and GSA only meet for 1-2 hours a month usually, but many students have expressed that their advisors research expectations prevent them from participating
 - DEEP specifically requires advisor approval for participation, despite being an extracurricular activity.
- International students in particular have expressed concern in participating in non-research events or speaking out when experiencing issues for fear of having their visas removed
- Astronomy attendance vs physics: physics students are overworked and don't have time to be a part of these meetings. They often fear retaliation from their advisors for "not doing research".
 - Readjusting work schedules
 - Class workload
 - Culture has to be considered as well (see advisor-advisee discussion)
- There needs to be a unified code of expectations for grad students in terms of research, classes, and teaching/grading. Different professors have different expectations, but when you combine all the roles graduate students are meant to occupy they feel overworked on all ends
- Certain professors treat students and TA's in appalling ways that is detrimental to the working environment

Funding

 Secure, all-year funding for all grad students (including international students) at least until through their 5th year before admitting them.

Wages

- o Pay raises to match (at least) \$15/hr, 40 Hr/week jobs, i.e., \$30,000/ year.
- We should ask what the \$80k from OGAPS is going to?
 - why was it separate from grad stipend \$\$
- More money is our biggest draw as a department (esp wrt DEI efforts)
- Examples from PhD Stipends and Department Websites:
 - ChemE \$27,800
 - Statistics \$29,328 (Source)
 - Biochemistry \$27,750
 - Chem \$27,000 (Source) (NOTE: Physics students share a workplace with chemistry students)
 - Biology \$28,800 (<u>Source</u>)
- Current base graduate pay for our department is \$2,100 a month (\$25,200 per year) before taxes and health insurance
- Housing: there has been a steady increase in housing price (over the last decade) and stagnant wages → we need a commitment to increasing wages
 - Average rent in CS (1 bedroom) \$895 a 16% increase from 2020.
 (Source)
 - Average rent in Bryan (1 bedroom): \$705 a 13% decrease from 2020.
 (Source)

"College Station found itself ranked among high-cost cities such as Los Angeles and Miami when an analysis published in the New York Times this week scanned the country for cities with the least affordable rent by average income." https://theeagle.com/news/local/college-station-rental-rates-ranked-third-in-the-nation/article/ a220b107-ffaa-518e-8ed4-99591dba1f1c.html

• Clarification of graduate student + advisor roles with a written agreement (there is precedent for this in other departments)

Diversity Equity and Inclusion:

We need an actual department-wide [Diversity Equity and Inclusion] effort. Why are things not working?

Hiring a DEI officer

- A lot of DEI work gets dumped on grads who are pretty overloaded
- We didn't hire any women or non-white dudes last hiring session
- This person would be the unifying element between different DEI or C&D committees. Once a month or so have a meeting with one person from each committee to talk about what they are doing/how they are going to do it so it isn't just a bunch of random committees where nothing is really happening.
- Example from another university where they actually have a DEI officer: https://scripps.ucsd.edu/diversity

Recruitment of URMs

- Bridge program?
- Advertising for HBCUs and HSIs
- Making waivers more accessible/waiving fees for BIPOC students regardless of income
- We want the administrators to put pressure on the department to abolish the PGRE and GRE.

Retention of URMs

- What can the department be doing and what will the department do?
- One potential idea is to find funding sources for undergraduate research, since students from underprivileged backgrounds often can't afford to do unpaid research
- Utilizing mentoring programs with the postdocs/grad students/undergrads

• Workplace environment:

- Department level accountability to act as a middle step for **Title IX**-type offenses that won't win a Title IX suit.
- Department wide code of conduct: https://tamu-astro.github.io/codeofconduct.html
- Positive rewards for not harassing students/ being a pos:
 - Small research grants and awards for advising/ teaching.

Accountability and enforcement!

- this is abstract but it's generally targeted at the non-committees that seemingly have no power to make change or just don't meet @ the Diversity committee
- Merit fellowship -- only white men have been elected even though there are qualified women and POC.
 - For instance, most of the people that the department nominates for the diversity fellowship would also be highly qualified for the merit fellowship
- Where is the \$80k from OGAPS going to? Why was it separate from graduate student stipend?

Pedagogy:

- Training for professors, lecturers, and TAs in teaching that is based in modern, evidence based pedagogy.
 - https://arxiv.org/pdf/2109.00168.pdf <- for TA's
 - a teaching seminar?? Ideally for credit or during the summer.
 - Focus on science communication
 - We do have a center for teaching excellence at tamu...
 - o Professors need to know better how to teach as well.
 - Some students get "recommended" to not take physics here and take it at a community college.
 - Regular teaching workshops for grad students and faculty to keep up to date on pedagogy
- More usage of university resources such as <u>CIRTL</u>
 - o Provides research backed pedagogy for graduate students, postdocs, and faculty
 - More support for students and faculty who want to engage with learning opportunities, rather than admonishing them for taking time away from research
- Sensitivity training
- An overhaul of grad admissions practices: making both physics and general GRE optional, waiving application fees for all applicants, etc. [this spans the existing categories]
 - o https://journals.aps.org/prper/pdf/10.1103/PhysRevPhysEducRes.17.010109
 - https://arxiv.org/pdf/2008.10712.pdf
- Implement a physics counterpart to astronomy's MAGIC mentoring program.
- Graduate representation on the grad student admissions committee.
 - o give \$\$ -> TA/ RA replacement.
 - Need the time and support to do this stuff.
- Scholarships or awards for lead TA positions (pref w/ \$\$\$).

Specific to advisor-Advisee and Faculty-Student Relations:

- More rigorous guidance/advising from our advisors on how to go about actually getting our degrees, e.g. when to file paperwork, when we should be defending, what we need to do in order to defend.
 - Further involving committees -> accountability
 - There are students here who get stuck in degree limbo.
 - Encourage regular meetings with committee members as well as advisor
 - Mentoring is important see Grad stem (2018) link above.
- Increased structures to handle code of conduct violations. This includes, but is not limited to: having a departmental code of conduct, prominently displaying reporting methods, transparency of how decisions are made
- General thought: we tend to only be reactive/punitive and don't solve problems
 - We need preventative && cultural change.
- Making changing research groups as easy as possible, e.g.
 - Something akin to MIT's fund for students switching groups,
 - or making it a formal policy that it is okay to bounce around groups for the 1st and 2nd year students. ["No questions asked" from the 3/23 meeting]
 - o The funding guarantee will do a lot to help this
- We all know there are profs who have harassed students or otherwise mistreated them, often repeatedly, and there have been zero consequences.
- More integration of grads into decision-making structures. That could involve:
 - Having more grad reps on committees
 - Moving discussions that currently happen behind closed doors in faculty meetings to public forums
 - More forums with department leadership
 - Formally integrating the GSA into policy-shaping bodies (e.g., policy proposals are passed to the GSA and then passed back up after discussion/amendments)
 - more transparency regarding faculty and department leadership meetings (e.g. publicly available minutes).
- Greater support for students and staff to pursue and work on non-research related initiatives.
- Formally recognizing that participation in things like GSA, GPSG, GSAC, SUPA, OSA, AOT, etc. are valuable contributions to the department and our careers.
 - Establishing metrics for grad success that explicitly acknowledge participation in these activities as being valuable and counting towards degree completion;
 - Actively encourage students to attend and participate in GSA and other organizations
 - In the same way that participating in committees is considered as part of being a faculty member, participating in GSA, SUPA, OSA, etc. should be seen as an essential part of being a grad student here.
 - This should be the case even if it entails a slightly slower rate of research output.

<u>Useful Papers/Reports:</u>

- National Academies Reports:
 - o Graduate STEM Education for the 21st Century (2018).
 - Promising Practices for Addressing the Underrepresentation of Women in Science, Engineering, and Medicine (2020).
 - The Impact of COVID-19 on the Careers of Women in Academic Sciences, Engineering, and Medicine (2021).
- "Tying Research Funding to Progress on Inclusion," white paper for Astro2020, Dara Norman et al.
 - https://ui.adsabs.harvard.edu/abs/2019BAAS...51g..14N/abstract
- "Collaboration: Strength in diversity," Freeman & Huang, 2014, Nature.
 - https://www.nature.com/articles/513305a
 - link between paper citations and ethnic mix of the authors as determined from author names
- "How Diversity Makes Us Smarter," Phillips, K., 2014, originally published in the Scientific American, un-paywalled version here
 - o https://greatergood.berkeley.edu/article/item/how-diversity-makes-us-smarter
 - you try harder to problem solve when you're in a group of people who are very different from you
- Physics PhD Outcomes One Year Later for Spring 2019:
 - https://www.aip.org/statistics/physics-trends/physics-phds-1-year-later-0
- Was your advisor helpful in your career planning/advancement? split across different career paths:
 - https://www.aip.org/statistics/data-graphics/was-your-advisor-helpful-your-careerplanning-or-advancement-phd-classes
- Attitude towards jobs by physics PhD holders divided by sector:
 - https://www.aip.org/statistics/data-graphics/subjective-aspects-initial-employment
 -physics-phds-holding-potentially
- Astro2020 has a panel on the State of the Profession and Societal Impacts, panel's statement of task (here) includes:
 - "Assess the state of the profession, using information available externally and, if necessary, data gathered by the study itself, including workforce and demographic issues in the field. Identify areas of concern and importance to the community raised by this assessment in service of the future vitality and capability of the astronomy and astrophysics work force. Where possible, provide specific, actionable and practical recommendations to the agencies and community to address these areas. This report shall be made available following the completion of the study."
 - This is to say that the panel's chapter will have useful stuff and should be referred to when it comes out.
- AAS 2017 Inclusive Astronomy Recommendations
 - Removing barriers to access, Creating inclusive climates, Improving inclusion and access to policy, power, and leadership, Establishing a community of inclusive practice