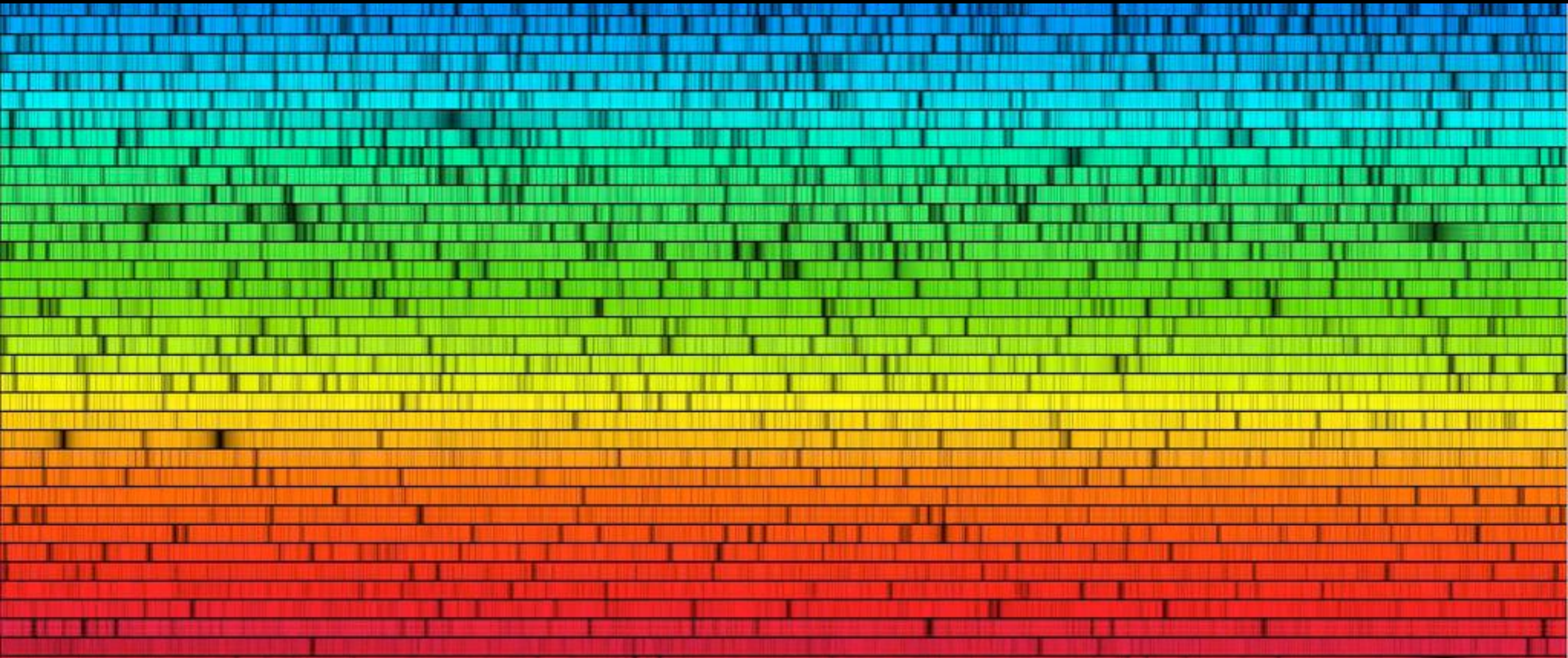


# BUILDING AN INCLUSIVE DEPARTMENT



DR. MACKENZIE WARREN

NSF ASTRONOMY & ASTROPHYSICS FELLOW, MICHIGAN STATE UNIVERSITY

WIPC, JUNE 27TH, 2019

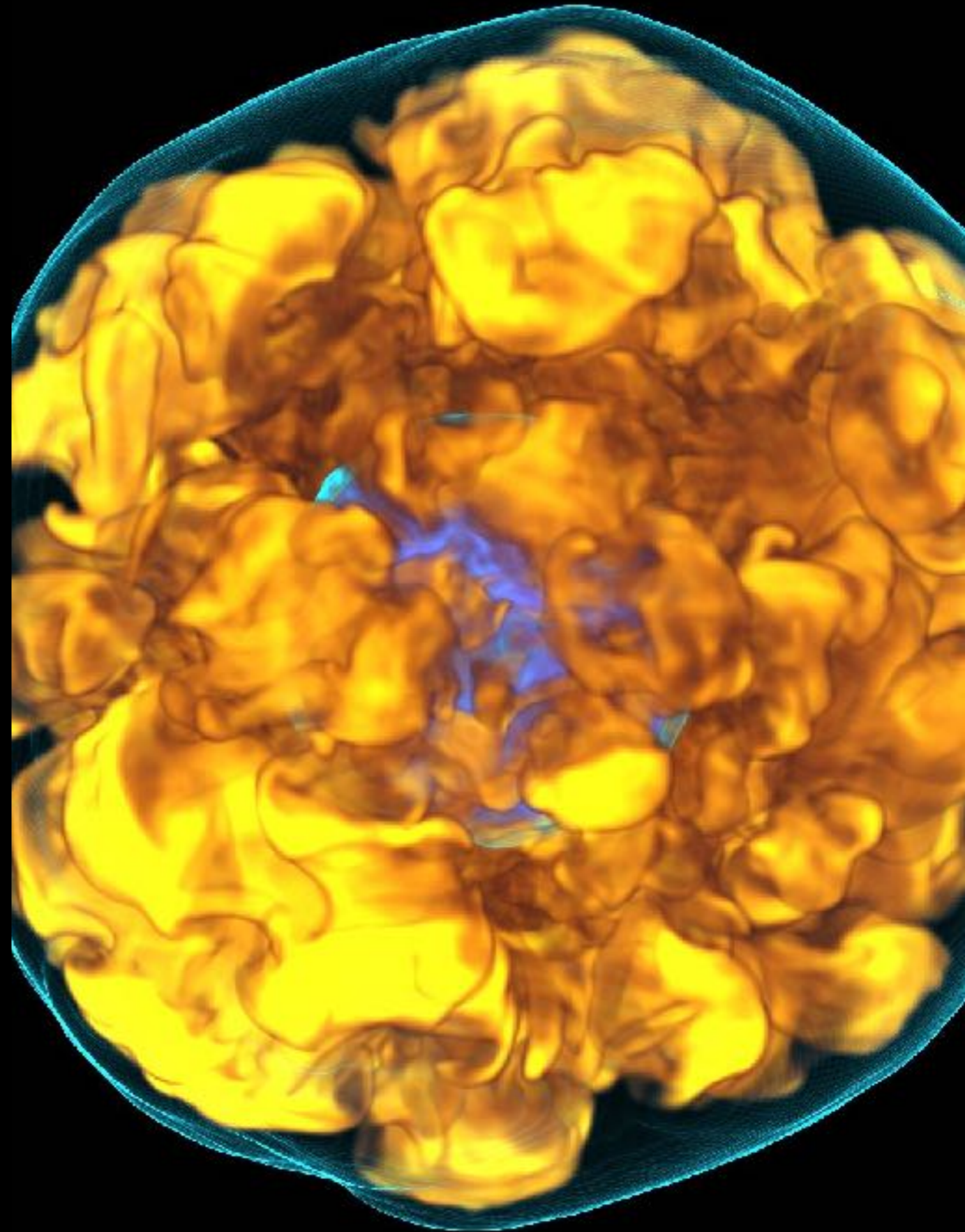
EMAIL: [MWARREN@MSU.EDU](mailto:MWARREN@MSU.EDU) | TWITTER: [@ASTRONOMACK](https://twitter.com/ASTRONOMACK)

SLIDES (WILL BE) AVAILABLE AT [WWW.MACKENZIE-WARREN.COM](http://WWW.MACKENZIE-WARREN.COM)

We are meeting on unceded Seneca, Cayuga, Onondaga, Oneida and Kanien'kehá:ka land. As scientists, we must contend with the fact that our universities and research facilities are the products of colonialism and white supremacy and science has been used to aid in colonialism and white supremacy. The participation of scientists in colonialism and white supremacy is not a thing of the past, but continues to this day (e.g. the construction of the Thirty Meter Telescope on Mauna Kea).

# ABOUT ME

- He/him or they/them
- Postdoc in astronomy in MSU
- Queer and transgender
  - Came out and transitioned in graduate school
- Work on E&I in STEM from department to national level
  - Founding university groups for LGBTQ+ folks, women in STEM
  - AAS Committee for Sexual-orientation and Gender Minorities in Astronomy



# GROUND RULES

- **Share the air.**
- **Be aware of power dynamics. Center voices of marginalized groups.**
- **Lean into discomfort, be vulnerable.**
- **Be aware of intersectionality.**
- **Oops, ouch.**
- **Intent  $\neq$  impact.**
- **Private thoughts, public meeting.**
- **Any more that we would like to add?**

These ground rules are mostly those from the Inclusive Astronomy Conference:  
<https://vanderbilt.irisregistration.com/Home/Site?code=InclusiveAstronomy2015>

CW: Sexual harassment & assault, racial harassment,  
transphobia, homophobia, etc

# GOALS

This workshop will provide tools, resources, and discussion of how to dismantle the racism, sexism, cissexism, heterosexism, ableism, and other systemic imbalances of power within our departments.

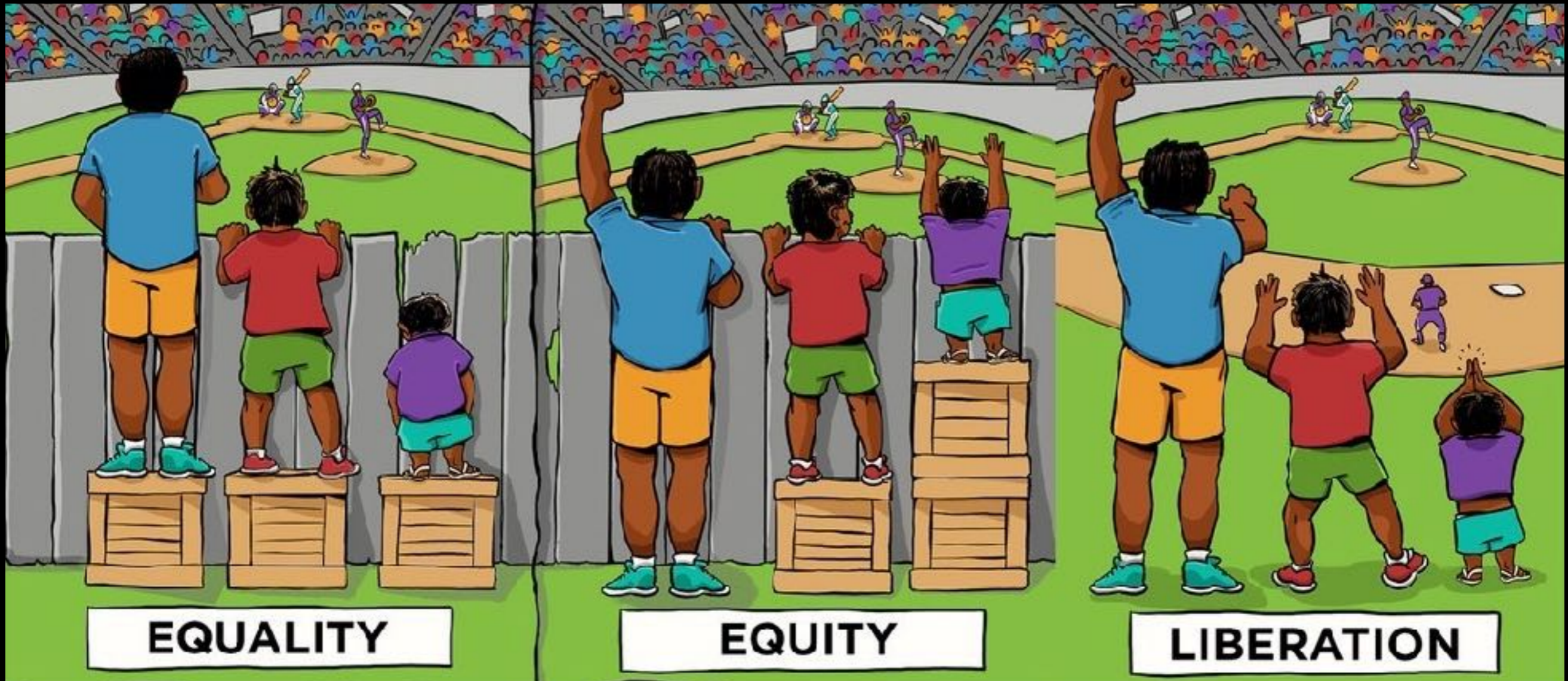
- What do we mean by diversity vs equity vs justice? What is intersectionality?
- How do we tackle equity from:
  - Recruitment
  - Retention
  - Assessment
  - Handling problems

# GOALS

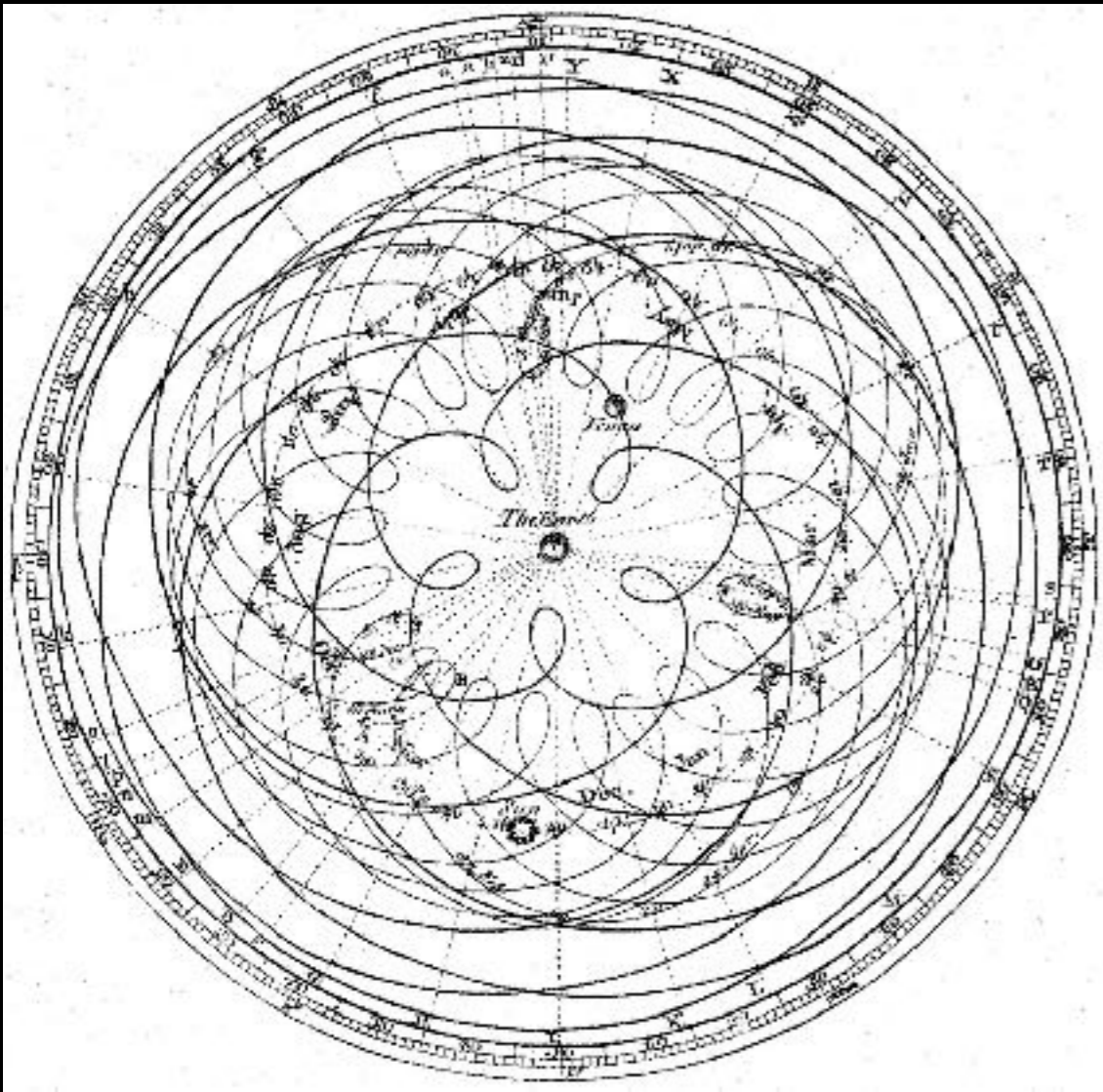
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  - Retention
  - Assessment
  - Addressing problems

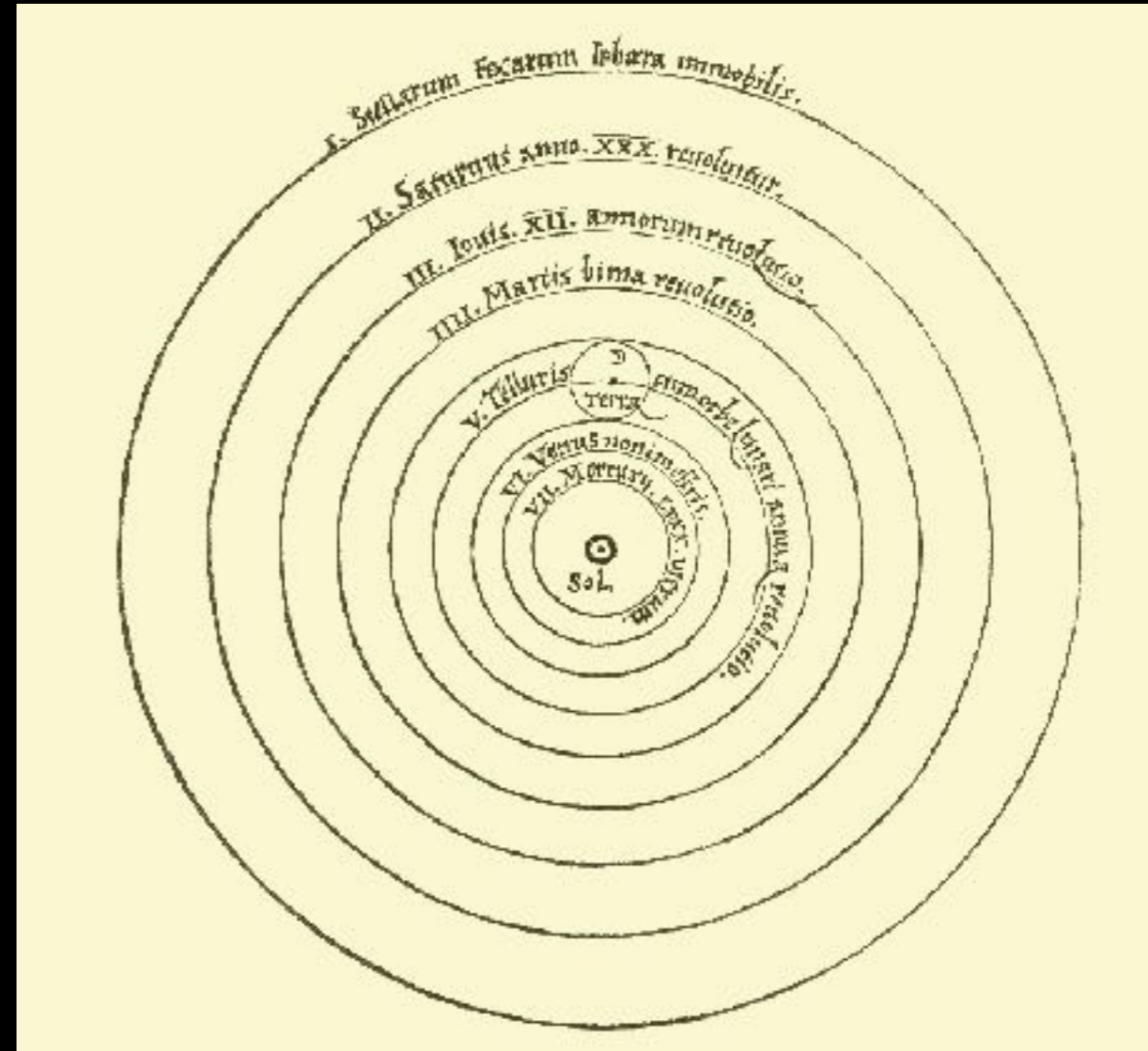
# DIVERSITY VS EQUITY VS LIBERATION



# PHYSICS ANALOGY: GEOCENTRIC VS HELIOCENTRIC SYSTEM



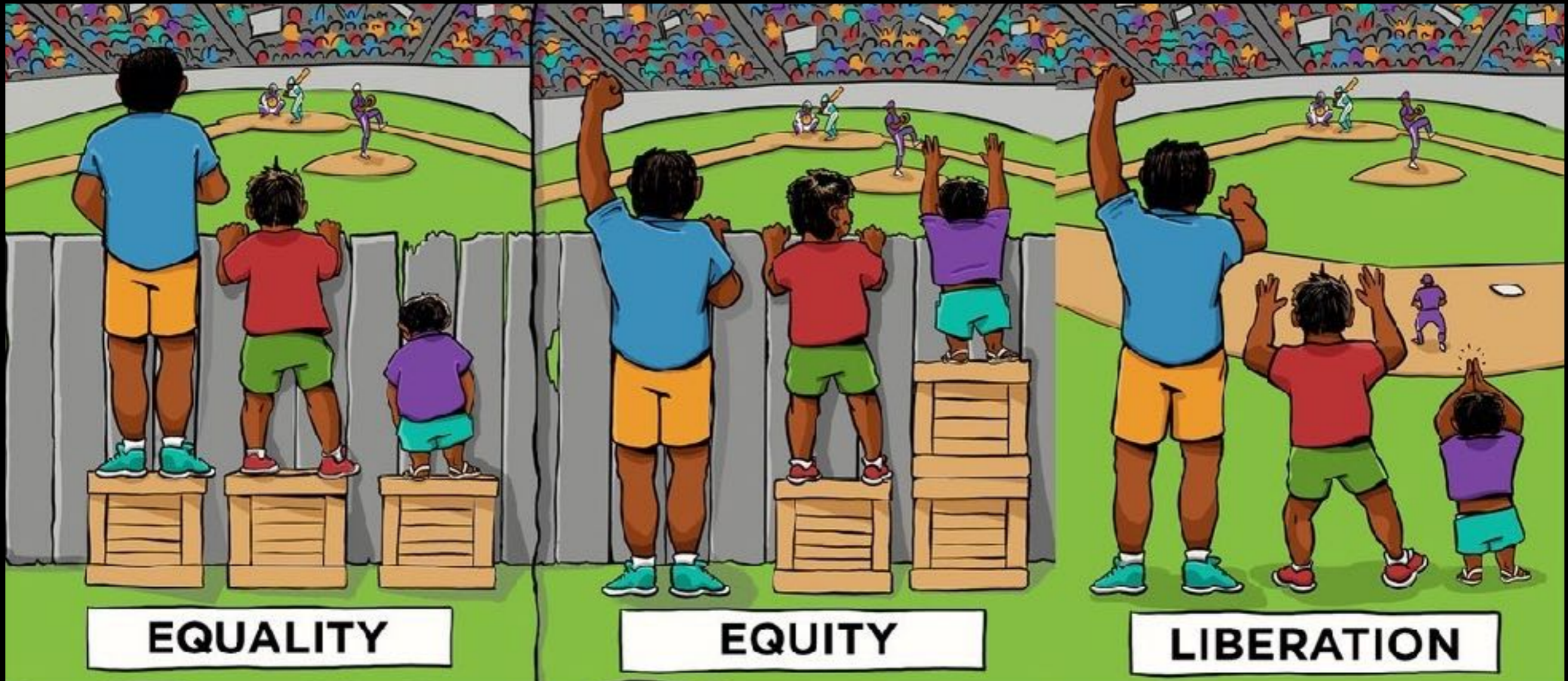
Cassini's Geocentric system



Copernicus' On the Revolutions of the Heavenly Spheres



# DIVERSITY VS EQUITY VS LIBERATION

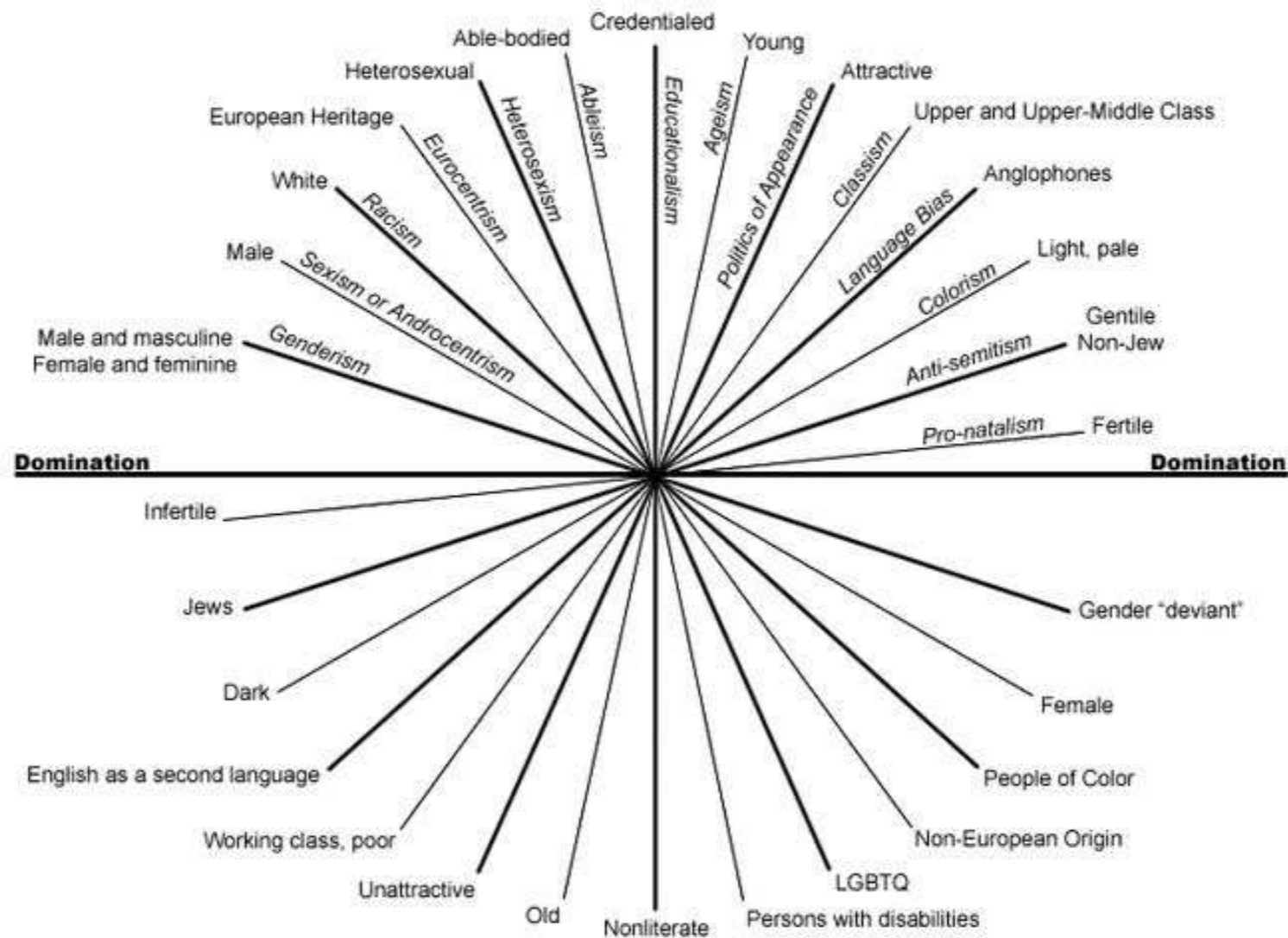


# INTERSECTIONALITY

Crenshaw 1989, Collins 1990, 2000

## Intersecting Axes of Privilege, Domination, and Oppression

Adapted from Kathryn Pauly Morgan, "Describing the Emperor's New Clothes: Three Myths of Educational (In)Equality,"  
The Gender Question in Education: Theory, Pedagogy & Politics, Ann Diller et al., Boulder, CO: Westview, 1996.



An individual isn't intersectional, systems of power intersect

Breaking into small groups...

How do EDI initiatives fall into the diversity/equity/liberation framework?  
Are they able to address intersecting systems of oppression?

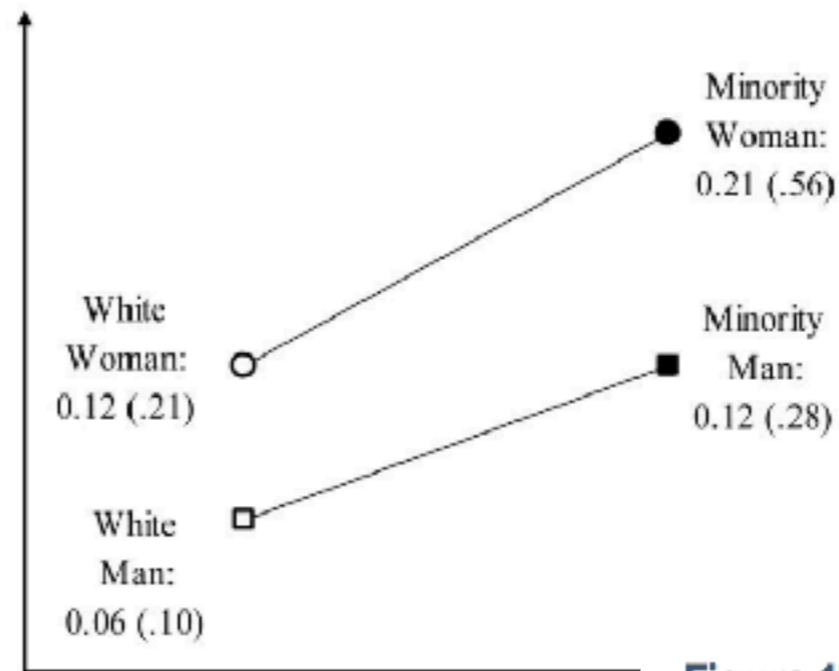
THINKING ABOUT EQUITY & JUSTICE, HOW TO ENSURE THAT  
PHYSICS IS SAFE FOR EVERYONE?

RETENTION

# SEXUAL HARASSMENT

## Sexual Harassment:

Minority women experienced significantly more sexual harassment than minority men ( $B=-1.07, p<.05$ ) and White men ( $B=-1.43, p<.05$ ).



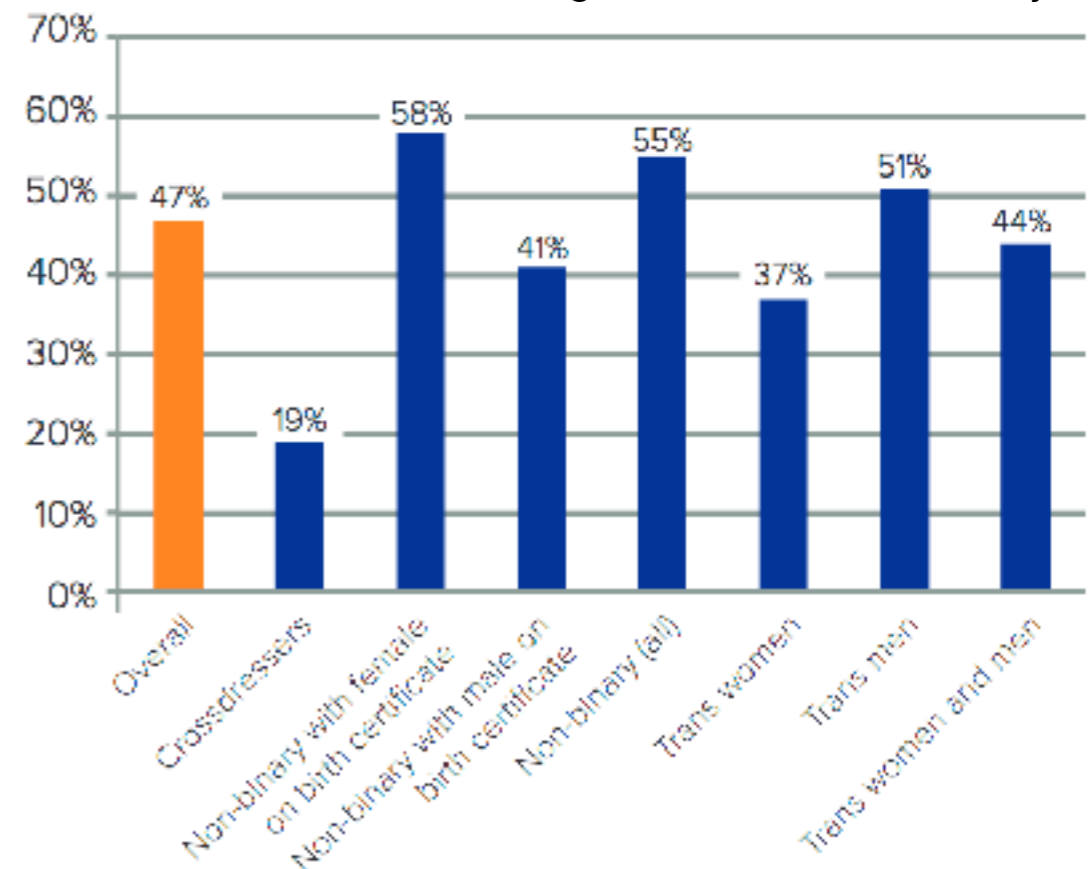
“Double jeopardy”

Berdahl and Moore (2006)

Whose stories are we hearing?  
Are the ways that we are addressing harassment leaving people out/behind?

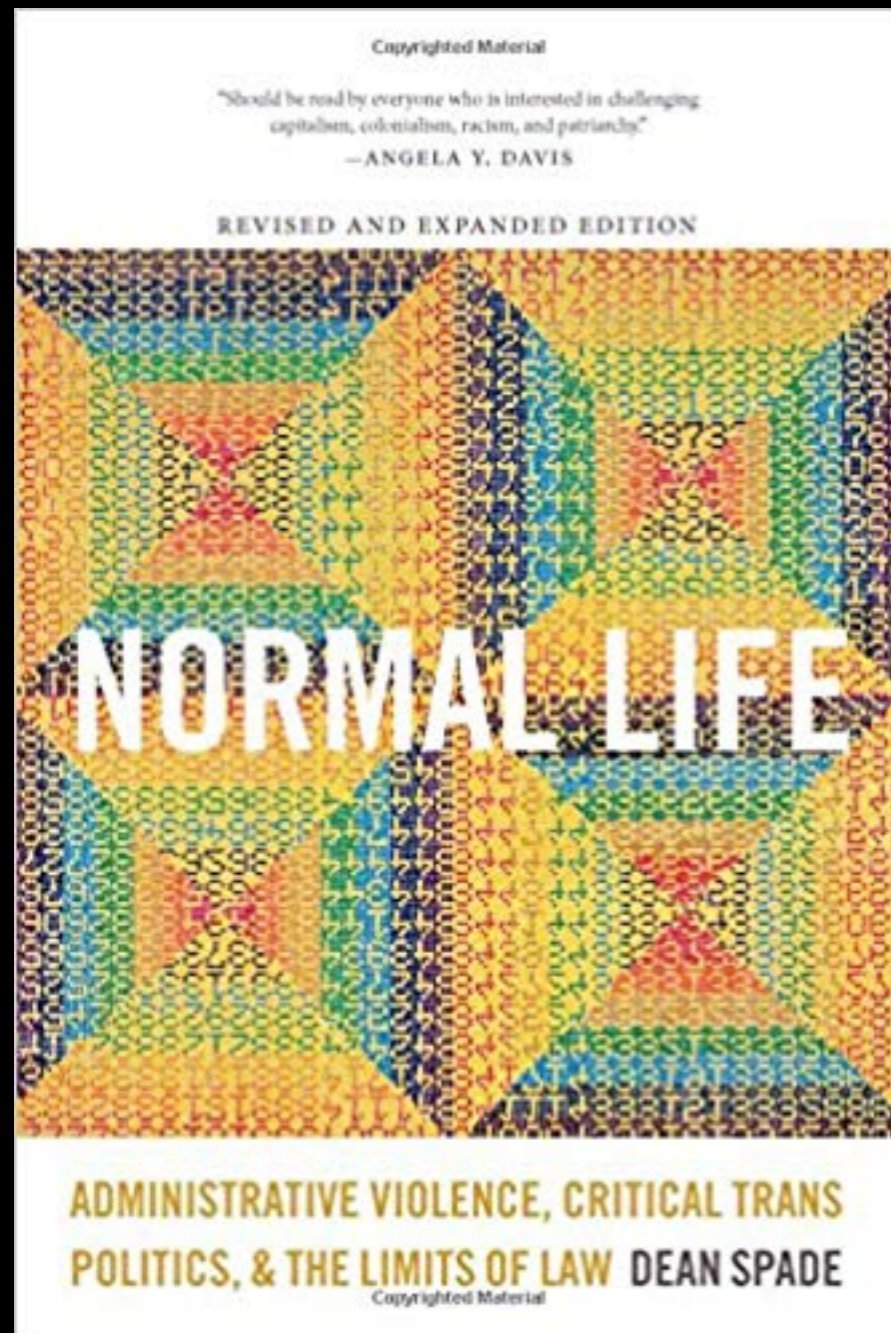
Figure 15.16: Lifetime sexual assault  
GENDER IDENTITY (%)

Figure from US trans survey (2015)



# DON'T UNDERESTIMATE BUREAUCRACY

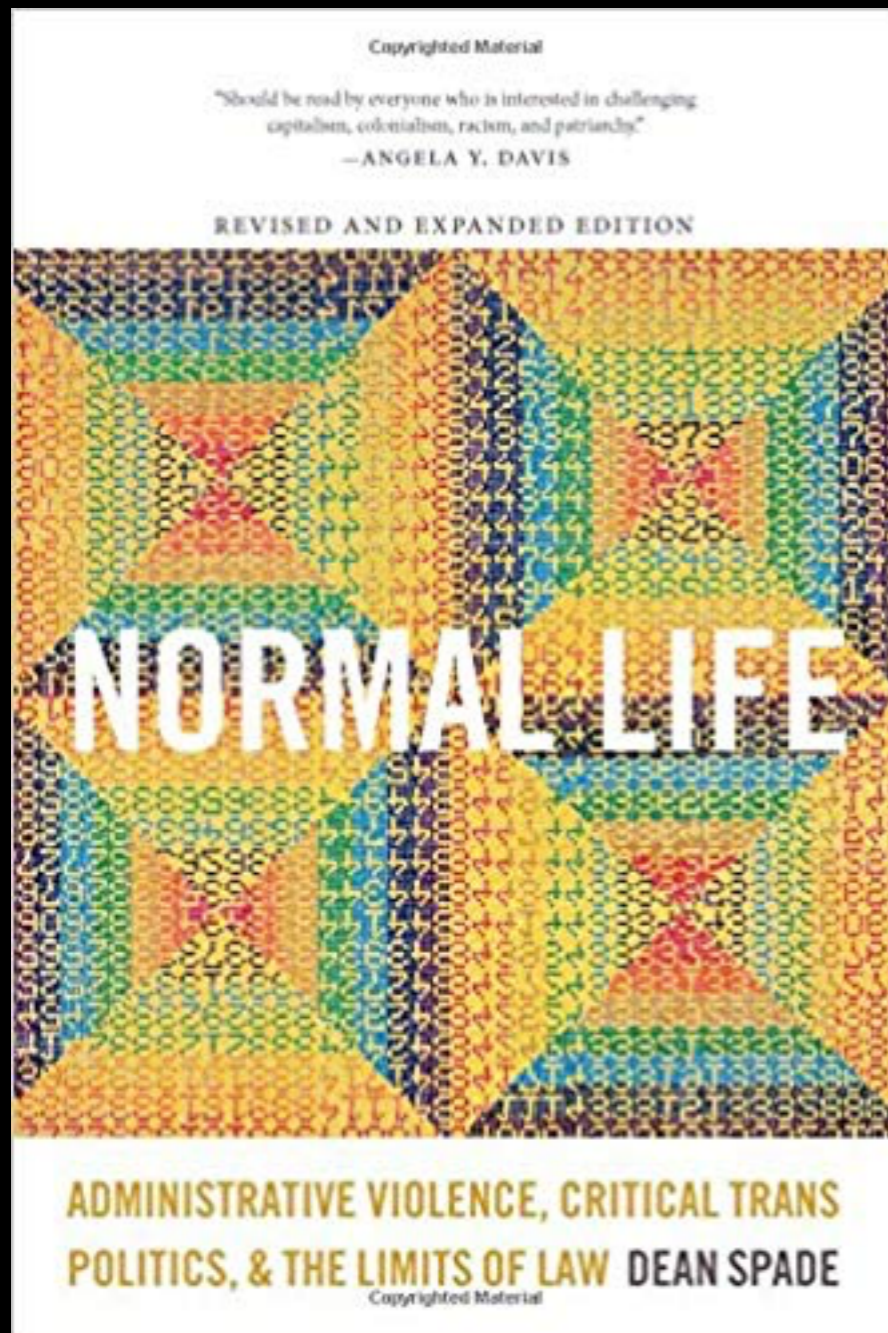
## *Administrative violence*



"...administrative systems in general are sites of production and implementation of racism, xenophobia, sexism, transphobia, homophobia, and ableism under the guise of neutrality." - Dean Spade

# DON'T UNDERESTIMATE BUREAUCRACY

## *Administrative violence*



"...administrative systems in general are sites of production and implementation of racism, xenophobia, sexism, transphobia, homophobia, and ableism under the guise of neutrality." - Dean Spade

Doesn't require an explicitly racist/sexist/ableist/etc individual to perpetuate systems that were built on oppression or built to oppress

What are some administrative/bureaucratic barriers in physics?

- Financial requirements, e.g. application fees, travel, etc
- Assumption of access to internet, GRE training, other resources
- Visa requirements and immigration
- Travel reimbursements - often months of delay to get reimbursed for thousands of dollars
- Management, mentoring, and advising training for faculty
- Mistrust of institutions
- Name (and gender) changes



# What are some administrative/bureaucratic barriers in physics?

- Ability to travel freely - immigration & documentation status, probation, prior convictions
- Travel reimbursements
- Shared lodging during travel
- Health care, medical leave, and insurance
- Parental leave, lactation rooms, childcare
- Facilities access - gender neutral, accessible bathrooms, elevators and ramps, seating

See the Nashville recommendations, AAS Task Force on Diversity in Graduate Education, AAS WGAD Access Resource website, APS LGBT Climate in Physics report, APS Effective Practices for Recruiting and Retaining Women

HOW CAN WE DETERMINE HOW WELL WE ARE DOING? AND WHAT NEEDS IMPROVEMENT?

# ASSESSMENT

# DEFINING SUCCESS: GRADUATE ADMISSIONS CRITERIA

 OPEN ACCESS  PEER-REVIEWED

RESEARCH ARTICLE

## Predictors of Student Productivity in Biomed School Applications

Joshua D. Hall , Anna B. O'Connell, Jeanette G. Cook 

Published: January 11, 2017 • <https://doi.org/10.1371/journal.pone.0169121>

Typical physics Ph.D. admissions criteria access to underrepresented groups but fail to predict doctoral completion

Casey W. Miller<sup>1,2</sup>, Benjamin M. Zwickl<sup>2</sup>, Julie R. Posselt<sup>3</sup>, Rachel T. Silvestrini<sup>4</sup> and Theodore S. Low<sup>1,2</sup>  
[+ See all authors and affiliations](#)

*Science Advances* 23 Jan 2019;  
Vol. 5, no. 1, eaat7550  
DOI: 10.1126/sciadv.aat7550

RESEARCH ARTICLE

## The GRE over the entire range of scores is a poor predictor of PhD outcomes in the biomedical sciences

Wanda Sealy , Christina Saunders, Jeffrey Blume, Roger Chalkley

Published: March 21, 2019 • <https://doi.org/10.1371/journal.pone.0206570>

 OPEN ACCESS  PEER-REVIEWED

RESEARCH ARTICLE

 OPEN ACCESS  PEER-REVIEWED

RESEARCH ARTICLE

## Multi-institutional study of PhD degree completion: Predictors and outcomes

Sandra L. Petersen , Evelyn S. Erenrich, Dovev I. Shavit

Published: October 29, 2018 • <https://doi.org/10.1371/journal.pone.0206570>

## The Limitations of the GRE in Predicting Success in Biomedical Graduate School

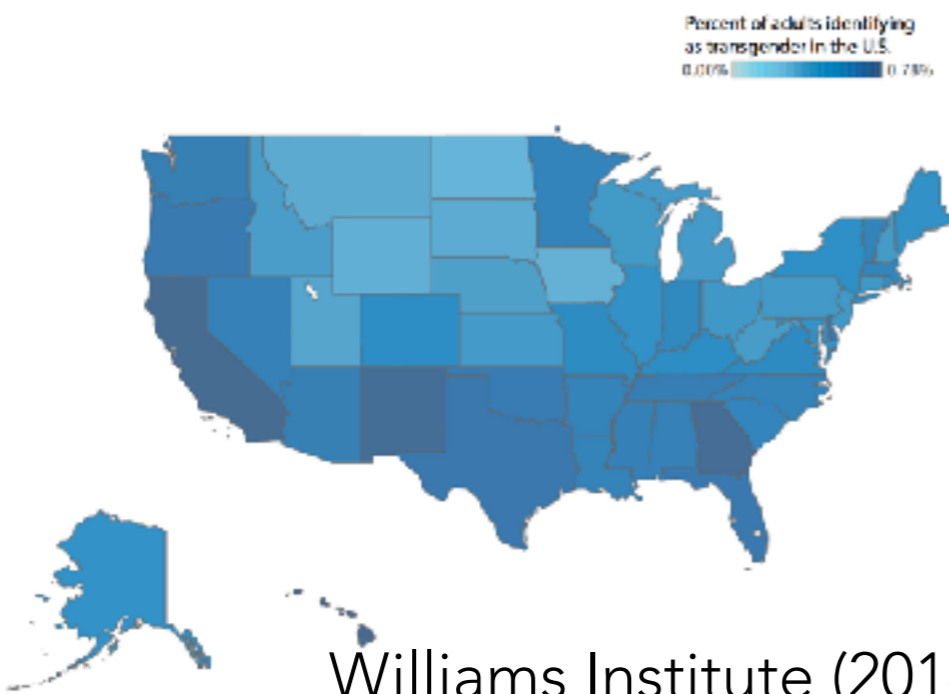
Liane Moneta-Koehler, Abigail M. Brown, Kimberly A. Petrie, Brent J. Evans, Roger Chalkley 

Published: January 11, 2017 • <https://doi.org/10.1371/journal.pone.0166742>

# UNINTENDED CONSEQUENCES: GENDER EQUITY IN STEM

\* Gender:  Female  Male

Figure 1. Percent of Adults Who Identify as Transgender in the United States



## Physics Departments Awarding 30% of More of PhD Degrees to Women, Classes of 2013 through 2017

College of William & Mary (VA)	Tufts University (MA)
Drexel U (PA)	University at Albany (SUNY)
Emory U (GA)	University of Alaska, Fairbanks
Harvard U-Applied Sci (MA)	University of California, Santa Cruz
Kansas State University	University of Denver (CO)
Lehigh University (PA)	University of Houston (TX)
New Mexico Inst of Mining & Tech	University of Maryland, Baltimore County
New Mexico State University	University of Michigan, Ann Arbor-Applied Phys
Old Dominion University (VA)	University of New Hampshire
Portland State University (OR)	University of Notre Dame (IN)
Stanford University (CA)	

Source: AIP Statistical Research Center, Enrollments and Degrees Survey.

To be included on this list, departments needed to have at least 5 women graduates between 2013-2017 and needed to consistently provide gender and completion data in our annual surveys.

AIP | Statistics

[aip.org/statistics](http://aip.org/statistics)

<sup>4</sup> We recognize that the gender binary is incomplete and does not capture a wide range of individuals who do not fall within these two categories, as is the practice of assigning a gender based only on names or images. For this work we make the assumption that the number of non-binary or otherwise incorrectly-gendered individuals is not large enough to affect our calculations.

When deciding priorities in fighting for gender equity, we must not put cis peoples' comfort above trans peoples' safety.

Education

## Texas House passes 'bathroom bill' restricting transgender student access

Education

## Education Department no longer investigating transgender bathroom complaints

By [Moriah Balingit](#) February 12 [✉ Email the author](#)



## LGBT rights group claims Virginia middle school left transgender student alone during active shooter drill

Just In...

BY AVERY ANAPOL - 10/08/18 12:55 PM EDT

283 COMMENTS

What are useful ways to measure success? What are useful tools for making these measurements? How can we avoid unintended consequences in our EDI work?

- Qualitative narratives/interview can be just as valuable as quantitative data
- Learn from others - single institution may not have enough people for broad demographics, implementing best practices
- Define success carefully - doesn't necessarily mean students end up with TT faculty jobs in physics
- Don't assume linear career path - people may come back to school later in life, take time off, switch fields
- Conduct exit interviews of everyone who leaves your program - whether they're graduating, switching departments, or "dropping out"

What are useful ways to measure success? What are useful tools for making these measurements? How can we avoid unintended consequences in our EDI work?

- Climate surveys
- Demographics surveys
- Interviews
- Feedback forms

# DON'T BE AFRAID TO ASK FOR HELP

We, as physicists, are not trained in sociology, human resources, psychology,....



## Site Visit Oversight Committee (SVOC)

**History:** Established 2017.

**Members:** The Chairs of each AAS Diversity Committee (currently [CSMA](#), [CSWA](#), [SGMA](#), and [WGAD](#)) and the AAS President each appoint one person to the Oversight Committee, subject to approval by the Board of Trustees. The Committee may appoint two additional members who are experts in protocols and procedures relevant for climate site visits, also subject to Board approval.

**Term:** Three years, June business meeting to June business meeting.

**Chair:** Elected by committee, subject to approval by the Board of Trustees; three year term, from the June business meeting to June business meeting.

**Charge:** The climate site visit team will support the department of the Site Visit Oversight Committee to improve the Site-Visit process by providing the team by providing confidential information and offering support available here

[Effective Feedback](#)  
[AAS Climate](#)



**Dra. Nicole Cabrera Salazar, at your service.**

Whether you're a research professor in need of better mentoring skills or a tech CEO with questions about diversity, you've come to the right place. Movement Consulting offers a range of services to meet the diversity and inclusion needs of your institution.

McGill / SOCIAL EQUITY AND DIVERSITY EDUCATION OFFICE / Equity Education

### What We Offer

Spaces Workshops

the Educators

Education Resources

## Training and Advising

**Equity education involves a range of training services and individual consultation on diversity issues to partners from every sector of the University.**

**Please note that previous training and advising activities normally taken up at SEDE are now being handled in a different area of the Office of the Provost. In order to find the right person to talk to, please see our [Educators page](#).**

Training and advising offerings include:

- **Regularly scheduled workshops** on a wide range of topics related to equity, diversity and inclusion at McGill, called [Safer Spaces workshops](#)
- **Custom trainings and advising** on programs, policies, and curriculum: organize a workshop specifically tailored to help your unit or department's commitments to equity
- **Help setting up an Equity committee** within your faculty/department
- **Help finding the relevant support and services** at McGill and in Montreal

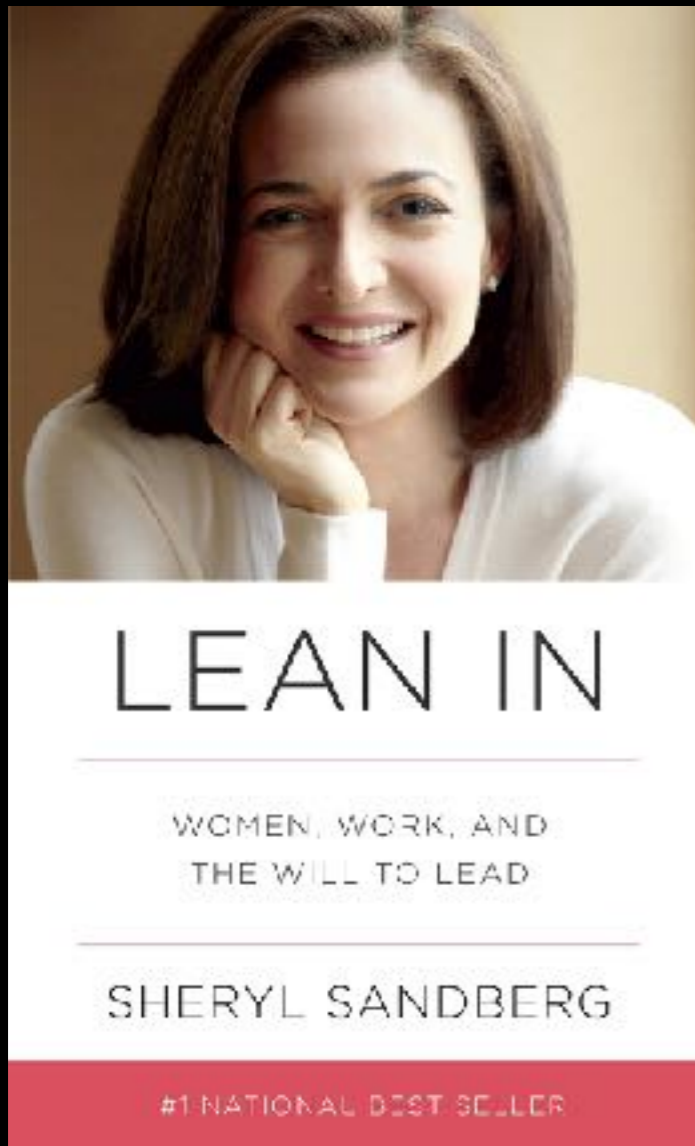




A.K.A. POLICIES ARE ONLY AS GOOD AS THEIR ENFORCEMENT.

# HANDLING PROBLEMS

# LEANING OUT: TRAINING THE NEXT GENERATION OF MEN IN SCIENCE



## Breakout session II

- **Research III:** Astrophysics
- **Research IV:** Gravity and String Theory
- **Professional III:** Resume-building workshop
- **Professional IV:** Getting involved with outreach
- **Diversity III:** Life-Career Balance
- **Diversity IV:** Navigating sexual harassment

We could proactively be teaching our students who are men bystander intervention training, attending and facilitating meetings, conferences

# TRANSFORMATIVE JUSTICE

Movement led by women of color to develop a model of community accountability outside of the criminal justice system and prison industrial complex.

Goals of Transformative Justice are:

- Safety, healing, and agency for survivors
- Accountability and transformation for people who harm
- Community action, healing, and accountability
- Transformation of the social conditions that perpetuate violence – systems of oppression and exploitation, domination, and state violence

(From Generation Five - Transformative Justice Handbook)

See also - INCITE!, Bay Area Transformative Justice Collective

# CLOSING THOUGHTS...

- We may need to work on building scaffolding and support right now, but we can't lose sight of the ultimate goal getting rid of the barrier altogether
- The "leaky pipeline" won't be fixed by forcing more water through it - retention and how we handle problems require just as much attention as recruitment
- We need to be able to assess the efficacy of our EDI programs to ensure that we're meeting our goals and not doing unintended harm

# INCLUSIVE ASTRONOMY 2



October 14–15, 2019

Baltimore • MD

Space Telescope Science Institute

Pre-registration and abstract submission are open through July 19th.

You **MUST** pre-register if you want to attend.

Funding for travel and childcare are available.

<http://www.tiny.cc/InclusiveAstro2>