# Royal Astronomical Society

# Inclusion
## Best Practice

**A community-contributed guide to inclusion in Astronomy and Geophysics**

Royal
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Society

## Dr Sheila Kanani MBE

I've been working in the EDI (equity, diversity and inclusion) space for 10 years and I've seen things change a lot, generally for the better. However, often more emphasis is placed on equity or diversity, and inclusion is sometimes overlooked. Having a guide like this, contributed to by the wider community, can only be a useful toolkit for anyone looking to improve their inclusion practices. The beauty of it is that there are small, quick wins, included in this guide. That means that anyone can get involved, from visitors to senior managers. We've split the information into best practices for the individual, for management and for organisations, so the levels of intervention may vary, but the overall message will remain the same: if we strive to improve our inclusive practices, in our teaching and learning and when organising events, our initiatives will become more inclusive. And inclusion is important for everyone! We spend a huge chunk of our lives at work and with others, so we want everyone to feel welcome, safe and respected. Astronomy and geophysics should be for everyone, after all, we all live under the same sky.

# Contents

## What is inclusion?

Inclusion is the act or practice of including and accommodating people who have historically been excluded. In the acronym EDI, Equity and/or Equality, Diversity, and Inclusion, Inclusion is the doing word and emphasises actively involving and engaging everyone in a way that promotes a sense of belonging and community. With diversity statistics increasing on many different axes in astronomy and geophysics over the last 10 years (for example with the various RAS surveys e.g. tinyurl.com/RASdemsurvey2017) it is now more important than ever to make those people feel included. It is critical to the wellbeing of individuals and ultimately the retention of underrepresented people. It can often come from very small acts that are easy to implement and it is the hope that this guide will provide a good starting point for those wishing to improve their inclusion practices.

Inclusion often goes hand in hand with accessibility. When we talk about one we are often referring to the other. Accessibility is ensuring the ability for everyone, regardless of disability, to have access, use and benefit from their environment. For a space, event, or process to be inclusive it also has to be accessible.

Intersectional identities create complexities and nuances. This is an important point to think about when looking at the rest of this document as things need to be made flexible to deal with it. There is no way that this guide could encompass all the practices that could be implemented and is meant to act as a starting point and as inspiration for future progress.

## Why is inclusion important?

Inclusion is the act of making people feel welcome. It is ensuring that it is safe for them to express and be who they are. People spend the majority of their time at work, especially in science-based roles where work also tends to be a passion, so it's critical that they feel safe and respected. A diverse workplace has proven to be an asset in and out of science and academia but without inclusion a diverse workforce cannot reach their full potential. Giving people a sense of belonging increases their performance and retains skilled individuals for longer.

In astronomy specifically, it has been historically a field dominated by a single demographic. There is still much work to do to change this but there has been incredible progress on some axes. Women are now approximately 20% of the community (tinyurl.com/RASdemsurvey2017), which is a huge increase from just a short time ago. On the other side, we have seen sharp increases in bullying and harassment within the field (tinyurl.com/RASBandH) that have caused cascading negative impacts. With this guide we hope to increase focus on inclusion in the field and not allow our advances in equity, equality and diversity get ahead of our ability to be kind and empathetic to everyone.

## Who is this guide for?

Do you want to encourage the participation and wellbeing of people of all backgrounds in your institution or company? Are you an individual looking to be better ally and advocate? We hope this booklet will help to start you down the right path. This guide is for everyone and anyone in the Astronomy and Geophysics community who strives to improve their inclusion practices.

We have brought together the experiences of EDI representatives throughout the community. The practices and quotes that have been listed are from people who are hard at work testing new and improved ways to make this community a better place.

## Individual best practices and how to be a good ally

**The things we can do day-to-day as individuals are arguably the most impactful form of inclusion because it is what truly makes people feel welcome in a space. There are countless everyday kindnesses and actions that can be done by you and your colleagues to increase everyone's feeling of belonging in the workplace.**

### Visible identities

Everyone's identity is fundamental to them. Some identities are not always visible to others and can result in hurtful assumptions. As an ally, the practice of making your identity more visible helps others to feel more comfortable identifying themselves. For example, including pronouns and working hours in email signatures has already become more common place. Another good practice is including pronouns on badges that are worn in person or wearing a rainbow lanyard that identifies you as an LGBTQ+ ally.

### Encouraging success in others

Going for promotion can be daunting and minority people are usually less likely to put themselves forward. As an ally you can encourage and facilitate this process. The same can be said for awards and prizes. Nominating individuals that you know deserve recognition is a great practice to make people feel like their work is making a difference and being acknowledged.

### Mentorship

Mentoring others who are earlier in their career, either formally or informally, is a valuable approach that can help with the development and belonging of both the mentee and mentor. Mentorship is not always an equitable mechanism for knowledge transfer and partnership due to mentors historically choosing people "like themselves" to mentor. Therefore, it is important to start a mentorship through an EDI lens with empathy and boundaries.

### Engagement with EDI initiatives

The burden of EDI often falls to those with a perceived greater invested interest, i.e. minority groups. This shouldn't be the case as all people benefit from an inclusive workplace. An easy way to be an ally is by attending and supporting events in your organisation. Joining committees and working groups is also a great use of time as it eases the burden on those who usually commit their time.

"Everyone's identity is fundamental to them. Some identities are not always visible to others and can result in hurtful assumptions."

### Quick Win

As an individual no one is perfect, and learning how to be an ally is a journey. A simple and easy way to make sure you're on the right track is to always listen, acknowledging your mistakes, apologise, and learn from them.

## Spotlight:
## University of Sheffield

**Sheffield provide encouragement and support of visible identities within email signatures which includes pronouns, name pronunciation, pride, disability and working hours.**



**"Alongside other widely adopted inclusive text promoting healthy expectations around working hours/response times, our department is also supportive of visible identities in email signatures, i.e. pronouns, name pronunciations, and any other aspects of identity we are comfortable disclosing. It might seem redundant for those of us who aren't marginalised by our identity, but adopting these practices leads to a much more inclusive environment for those who are – we're all less likely to misgender people, pronounce their names wrong, or make other harmful assumptions based on the majority experience.  For me, personally, I am very keen for my disabilities (autism and mental health illness) to be visible to others. It helps to destigmatise differences, it shows our students that disability is not a barrier to success, and it fosters a welcoming and safe environment where we're all comfortable bringing our whole selves. There's a similar impact for LGBTQIA+ identities. Additionally, signature info serves as a reminder not to discriminate, and for more mindfulness surrounding collegiality and good working practices where the impact of falling short can affect marginalised staff disproportionately."**

*Dr Katherine Inskip (she/they), Senior Fellowship of the Higher Education Academy, Senior University Teacher in Astrophysics, School of Mathematical and Physical Sciences, University of Sheffield.*



"I am keen for my disabilities to be visible to others. It helps to destigmatise differences, and shows our students that disability is not a barrier to success."

## Best practices in leadership, supervision and management

You make a large impact on how people feel about their work life when it's your responsibility to lead, supervise or manage them. When supervising a PhD student, managing a team, or leading a project it is important to think of inclusion at all stages. All of the following practices have empathy at their core because science can't happen without people.

### Supporting the individual

It is good to be aware of the resources in your organisation that are available for people in different circumstances. Encouraging people to make accessible requests and making sure reasonable accommodations are made whenever needed. This also includes supporting flexible working for those with other commitments and responsibilities. Supporting people means trusting people to do their job no matter their circumstances.

### Facilitation over organisation

Allowing groups to lead themselves by facilitating rather than organising and supervising them works better in most situations. For groups to succeed they may need meeting spaces, small amounts of funding, or access to advertisement via social media etc. They may also need help with setting up leadership and organisational structures to succeed long term. As a manager it is important to make sure everyone's voice is heard during this facilitation process and not for your voice to be the only one.

### Supervision

Being a supervisor is not always easy and multiple supervisors are recommended for each person. This mitigates difficulties with incompatible relationships, misconduct or inattention. It is the supervisor's role to adhere to policy and encourage others to do the same.

### Meetings

Holding meetings between individuals and small groups is an essential part of leading people. Good communication with the aim of respecting people and their time is key. It is good practice to hold meetings during times when people are working.

**Spotlight:**
**Prof Victoria J Martin**
*University of Edinburgh – Professor of Collider Physics and EDI director for the School of Physics and Astronomy (she/her)*



"Our meetings are organised in core working hours where appropriate, but we try to take into account flexible working arrangements and time zone changes. This takes communication with team members and understanding and patience when it doesn't always work out. One person's working hours are not everyone's. Sometimes the only time a group can meet is outside of normal work hours and you have to put trust in people to do what's best."

## Quick Win

Facilitating time in casual settings like coffee/tea breaks encourages community feeling. If you're able to make this kind of informal gathering a regular agenda item in your team, it has been shown to be an impactful way to make people feel included.

There are a lot of things that an organisation or department can and should do to support inclusion practices. These may not be areas that you as an individual can impact easily but we hope that this will help to show what your organisation should be aiming for.

## Training

Inclusion practices are not always known but can always be learned and training can fill the gaps in people's knowledge. Best practice training for inclusion purposes includes but is not limited to the following types:

- EDI/Diversity awareness training to get a foundation of knowledge
- Unconscious bias training to make us aware of our own behaviours
- Bystander intervention training to be effective in tackling other people's behaviours
- Mental health first aid training to be there for others when needed

Some organisations made these types of training compulsory, and some did not. A suggested practice was to make it part of the promotion and progression criteria instead, so people take it more seriously and also take these skills with them as they move up in the organisation.

## Policy

There are a lot of policies needed to run a company. Strong policy and procedures around various areas of inclusion are necessary. Make sure your organisation has robust and clearly worded policy around:

- Diversity
- Bullying and harassment
- Parental leave
- Accessibility and reasonable adjustments
- Recruitment and selection
- Flexible working
- Mental health and wellbeing
- Menopause

This is not an exhaustive list and your organisation may differ but policy often shapes the culture of an institution and strengthening or changing written policy is a good place to start down the road of better inclusion practice.

## Hiring, promotion and progression

Inclusion in a job starts at the very first interview. The feeling of belonging in an organisation is often tied to how valued people feel and this closely links to their ability to progress within it. In addition to strong policy around recruitment and selection, there are many different practices that an organisation should do to strengthen the hiring and promotion processes. Unconscious bias can be reduced through thoughtful panel selection, blind/anonymous applications where possible, and clearly defined criteria for both the applicant and the panel. Can someone from the EDI committee sit on the panel? Are your panel a mix of different types of people who will bring differing outlooks and opinions? Providing interview questions in advance has been proven to ease the burden and level the playing field for neurodiverse candidates as well as reducing unnecessary stress for all candidates so everyone can perform to their best ability. Any practice that reduces the overall stress during an interview situation is best practice for inclusion.

## Monitoring

Monitoring of staff and student experiences in relation to inclusion is important to see how policy and practices are working. This can highlight areas of concern like harassment, lack of accessibility or support and be fundamental in shaping your institution's plans. Anonymous reporting of bullying and harassment is sometimes effective in solving the underlying problem but a lot of support must be given to individuals, especially for those who choose to disclose their identities.

## Community and Funding

Without funding from an organisation, a lot of inclusion practices are difficult, if not impossible, to set up. Facilitation and funding of minority group meetings and gatherings (e.g. staff-student tea breaks) are easy and effective ways to encourage community. Funding can also be used to finance fellowships that assist better progression for minority staff. Another small but impactful area to spend funding is to offer caring expenses for those travelling for work. This relieves part of the burden for those with extra responsibilities and makes involvement and progression easier for them. Money should be spent on providing free period and hygiene products in bathrooms of all genders.

A job that contains too many roles can only lead to burnout, frustration, poor mental health and ultimately the opposite of inclusion. The most effective way to support inclusion through funding is by far the hiring of specific roles. For example, a department officer for disability to ensure new accommodations can be met in a timely manner or a Diversity and Inclusion professional to bring outside expertise to policy and practice. All of these types of roles unburden research staff and make sure to get the best out of everyone.

### Spotlight:
### Sophia Quazi
*Imperial College London – Earth Science & Engineering and Mechanical Engineering – Equality, Diversity and Inclusion Coordinator (she/her)*



"Interviews are overwhelming, especially academic interviews where a lot of activities are usually arranged for a short time. We made the process less hectic by increasing the hours that the interviewee spends in the department and allowing for regular breaks in quiet rooms. We also try to help by funding travel, accommodation, and childcare where necessary. In recruitment this practice has helped people feel less overwhelmed, but it can only do so much for increasing the pool of applicants and eventual hires."

"A job that contains too many roles can only lead to burnout, frustration, poor mental health and ultimately the opposite of inclusion."

## Quick Win

Beware of overburdening those who are from diverse backgrounds and those already volunteering their time to EDI endeavours. Decent time allocation and recognition for work in EDI and outreach should be given because minorities often have higher burden for work in these areas. Recognising these activities with the same importance as publication and lab/fieldwork time is fundamental to reducing this inequality.

# Inclusion in teaching and learning

**Every student has not only a unique identity but also a unique way of learning. Inclusive teaching practices are needed to support that learning and help get the most out of everyone.**

## Accessibility in the classroom and laboratory

Creation of individual learning plans for those with specific learning needs are important but so is the follow up and additional support that these plans highlight. A lot of additional staff time needs to go into making materials and classes accessible (e.g. writing transcripts). This time needs to be made available and paid for or a departmental officer for disability can be hired to alleviate this burden. Some universities have a dedicated team to help accessible digital learning. They provide tools to make lecture notes accessible and can also be consulted on how to make lectures more inclusive. Laboratory environments are sometimes very loud and therefore not always accessible for students with neurodiversity. To alleviate some difficulties, triggering sounds should be identified and impacted students can be provided with noise cancelling headphones.

## Access to technology

The use of electronic tools in teaching can make learning much more accessible and equitable but only if student have access to the technology needed. Some departments use their budgets to provide the same electronic equipment for all students. They report that this has levelled the playing field, reducing inequalities between students of different socioeconomic backgrounds, and allows all to access the same information.

## Equitable & responsible fieldwork

Fieldwork settings are often isolated in geophysics, taking place in remote or sparsely populated locations with fewer health resources. This is why, in some institutions, staff are mandated to take mental health first aid training

if they do fieldtrips/fieldwork with students and graduates. Those staff members may be the only contact during a trip and therefore should know how to handle situations if they arise. Some students may benefit from help in buying suitable outdoor kit for use during fieldwork to increase their comfort and safety in unfamiliar environments. A good practice is giving a certain amount of money to each undergraduate student on fieldwork intensive courses to ensure they all have the equipment they need to succeed.

## Quick Win

The University of Sheffield has created and uses a resource with guidance on how to accommodate students with autism spectrum conditions in the physics laboratory environment. The specific challenges can be identified, along with a range of potential solutions. These are collected into a concise document which is circulated to all undergraduate physics lab staff, support services, and impacted students. This resource is available here: tinyurl.com/ASCprelabsupport

**Spotlight:**
**University of Exeter**
*Physics & Astronomy and Natural Sciences Inclusion Group*



"Individual Learning Plans (ILPs) support students with health conditions or disabilities by removing barriers that may prevent full participation at university or limit academic performance. All students with ILPs are emailed by their module lead at the beginning of term so that they may introduce themselves, explain how to contact them in case further support is needed, and what they do to meet the requirements. One student really struggled taking exams in large halls and their ILP made them able to change their exam venue to be more relaxed and perform to the best of their ability. Another student was marked down for their spelling and grammar in the past, but their ILP allowed them to get their thoughts down on paper without having to worry as much."



*Dr Claire Davies*
*Lecturer (E&S) in Physics & Astronomy*
*University of Exeter (she/her)*

"A good practice is giving a certain amount of money to each undergraduate student on fieldwork intensive courses to ensure they all have the equipment they need to succeed."

## Questions to ask when organising inclusive events

Any kind of event, from EDI-centred activities to large meetings and conferences, need to be made as inclusive as possible for as many people as possible. This can be a daunting task, but the following questions should help to focus on some of the more important things to consider.

- **Planning for access requirements:**
  Is anyone attending that needs accommodations?

  What kind of accessible facilities does your chosen venue have already?

- **Choosing a date and time:**
  Is the event during a major holiday for any group or religion?

  Are the times accommodating to people with caring responsibilities?

- **Food and drink:**
  Is alcohol appropriate and safe for the event?

  Does anyone attending have requirements for diet, religion or allergies?

- **Pricing and grants:**
  Will someone's financial or career level exclude them from going to the event? How can this be mitigated?

  Are people with caring responsibilities able to attend with minimal financial barriers?

- **Selecting and inviting speakers:**
  Is a group of people not being represented?

- **Format/timing considerations:**
  Would this be better as a virtual event?

  Have enough breaks been scheduled?

  Is making this event hybrid to accommodate more people possible?

- **Data collection:**
  Who is and isn't comfortable with being recorded or photographed?

### Spotlight: British Geophysical Association



Other organisations have thought about how to organise events in an equitable way and have available resources. The British Geophysical Association have an Equality, Diversity and Inclusivity consideration check-list for meeting organisers that can be downloaded from tinyurl.com/EDImeetingchecklist that provides a more detailed look at the considerations needed.

- **Technology:**
  Can technology be used to increase accessibility for people with different levels of hearing and seeing if needed?

- **Venue and room needs:**
  Do you have room for quiet and prayer spaces?

  Are there clearly signposted gender-neutral toilets?

  Are there private spaces for breastfeeding and pumping?

- **Code of conduct:**
  Is the code of conduct visible?

  What steps can you take to make sure it is adhered to?

## Summary

### Interesting findings

We took experiences from 16 different institutions. Though this sample size was small we targeted mostly Institute of Physics JUNO Champions and Practitioners who we knew had implemented inclusion practice successfully for their programme. We had ten responses to our survey that specifically asked for input for this document.

Nine out of the ten responding departments had a diversity officer but only one had a diversity professional with a salary. Most of the others had a member of staff with other responsibilities (i.e. a lecturer) that has allocated time for EDI work.

Engagement of senior staff is fundamental to the level of participation in EDI as it demonstrates the importance of it to early career researchers and students. There is however a tendency for participation in EDI to be highest from early career researchers. One institution said this promoted "bottom-up rather than top-down initiatives".

A large area of concern is the workload and burden placed on staff that makes it difficult to give time to any forward-thinking initiative like EDI. This burden increases for people from minority backgrounds.

All the institutions we spoke to have some form of departmental funding. Two of them had funding from external sources but this was for large projects that they had to bid for competitively.

Pressure from the student body was needed to create the largest changes.

Some institutions make sure to explicitly recognise a commitment to EDI as part of the recruitment and promotion criteria for staff and have reported that this has resulted in more diverse applicants and more activity in the EDI space.

### Bullying and Harassment

It is clear from our responses that this is a weakness in many institutions who contributed to this guide. It was mentioned that there are still high reports of bullying in university conducted staff surveys despite the existence of reporting structures. These structures remain poorly advertised and utilised, and this contributes to the problem.

The RAS Bullying and Harassment Report was released on the 17th May 2024 and shows the same things (tinyurl.com/RASBandH).
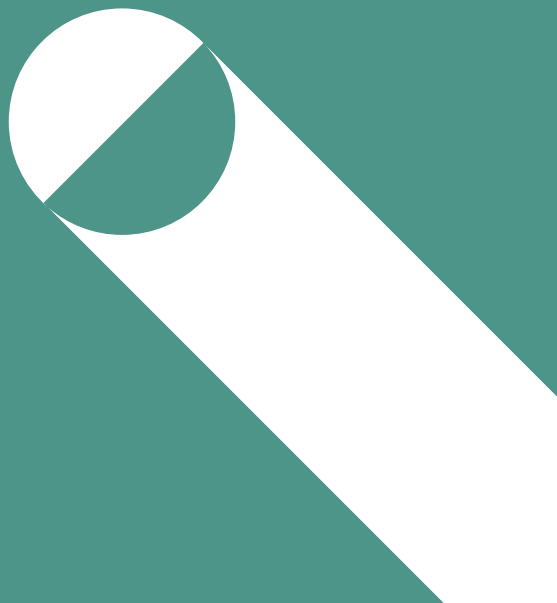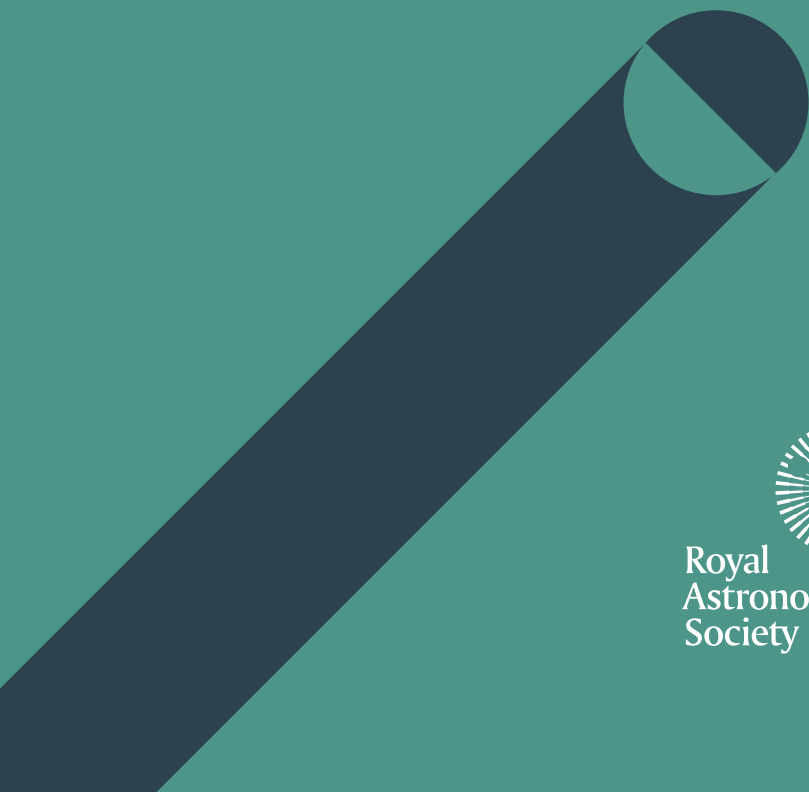
### Plans for the future

We recognise this is a growing and developing area so we hope that this guide will be the same.

The release of this booklet is only the start, and it is hoped that it can transfer to an online guide to be continually updated and contributed to by the community.

### Thanks

A huge thank you to those who contributed to this effort through the online form, in follow-up interviews, and by providing resources and materials. Particular thanks to Dr Naomi Rowe-Gurney for writing and compiling this inclusion guide, on behalf of the RAS EDI team, and to Prof Farideh Honary for donating her 2022 RAS Service Award (G) prize to the RAS team so that this inclusion guide could be published.