Department of Physics and Astronomy

Equity, Diversity and Inclusion: Strategic Plan 2019-2022

This document was developed by the Equity Diversity and Inclusion (EDI) Committee of the Department of Physics and Astronomy and adopted following a period of consultation across the Department in early August 2019. It sets out 5 key objectives for the next 3 years (to 2022), each to be addressed through several supporting strategies. An annual action plan (see schedule 1) sets out the work to be done towards these strategies each year.

The plan as described below has been endorsed by the Executive Dean of the Faculty of Science and Engineering and Macquarie University's Office of Workplace Equity and Diversity (OWED).

Oversight of the plan and its implementation rests with the Head of Department and the Chair of the Department EDI Committee.

**INTRODUCTION**

The disciplines of physics and astronomy have historically been characterised by inequitable opportunities and participation. In Australia and other English-speaking countries, this is reflected in a long-standing imbalance in favour of white men, despite the contributions of many outstanding women and people of diverse, under-represented backgrounds. Recent initiatives by the UK Institute of Physics (Juno Awards), the UK Athena SWAN program, the Astronomical Society of Australia (Pleiades Awards) and the Australian Academy of Science (SAGE scheme) have motivated research organisations and universities to assess their current profiles on equity, diversity and inclusion (EDI) and to identify strategies to improve the opportunities available to all of their staff and students. Improvements to EDI are a focus of activity across the Science, Technology, Engineering, Mathematics and Medicine (STEMM) sector both nationally and internationally, and will be a success differentiator for the departments that engage strongly with this issue. Our Department’s Workplace Culture Statement (provided in full in Schedule 2) establishes our position:

...We embrace Macquarie University’s commitment to principles of equity, diversity, and inclusion. We recognise these principles as core to our mission of fostering excellence and increasing impact in our research, teaching and community engagement...

Building on many years of work by individual staff members, mostly women, and several years of activity by a formal EDI committee, it is now time for our Department to adopt a more strategic, long-term approach. Our approaches for advancing equity, diversity and inclusion are laid out in this document. We believe that it is ethically right to adopt these principles, and that doing so is necessary to maintain our competitive edge in education, research and community engagement. Better outcomes in equity, diversity and inclusion will bring better access to opportunities for all members of our Department and will lift our success individually and collectively.
VISION
We seek a national physical sciences community that reflects and benefits from the full diversity of contemporary Australian society, and a Macquarie University Department of Physics and Astronomy that is at the forefront of achieving it.

KEY OBJECTIVES
The Department of Physics and Astronomy has established the following as its key objectives for advancing equity, diversity and inclusion within the Department and beyond.

1. To nurture a welcoming and inclusive working environment, where all Department members feel comfortable and safe, with equal access to opportunities for career advancement and professional support.
2. To achieve significant improvement in gender balance and other diversity measures in all parts of our operation at an accelerated rate.
3. To ensure that our commitment to equity, diversity and inclusion extends to and is reflected in the experience of our students at all levels.
4. To maintain and extend our role as a leader in equity, diversity and inclusion within the University, and build our reputation as a successful example of an equitable, diverse and inclusive workplace within our professional community.
5. To build a Department community with awareness, motivation and skills to actively promote and implement equity, diversity and inclusion principles in our spaces.

These objectives and their supporting strategies are intended to encompass all members of the department: unless otherwise specified in context, staff refers to all staff working within the Department whether academic, professional, research-only, teaching-only, administrative, technical, sessional, casual, continuing, fixed-term, full-time or part-time; unless otherwise specified in context, student refers to any student pursuing studies within the Department, including undergraduate students and candidates to Master of Research or Doctor of Philosophy.

SUPPORTING STRATEGIES

OBJECTIVE 1: A WELCOMING AND INCLUSIVE WORKING ENVIRONMENT
To nurture a welcoming, inclusive working environment, where all Department members feel comfortable and safe, with equal access to opportunities for career advancement and professional support.

Strategies:
1.A Identify and address remaining inclusion barriers that impact our female staff and students
1.B Identify and address ongoing inclusion barriers that prevent equal opportunity for all under-represented groups, including those impacted due to LGBTIQ+ identity, cultural and linguistic background, faith or faith-free identity, and physical or mental disability, acknowledging the increased barriers that are associated with intersectionality
1.C Increase visibility and reach of existing support systems and build additional capacity in this area
1.D Promote and celebrate the diversity within our Department and community

OBJECTIVE 2: RAPID IMPROVEMENT IN DIVERSITY MEASURES
To achieve significant improvement in gender balance and other diversity measures in all parts of our operation at an accelerated rate.

Strategies:
2.A Demonstrate ongoing and contemporary understanding of and adherence to best practice in recruitment
2.B Engage with the University on developing new approaches to recruitment that advance EDI
2.C Ensure equity in support for seeking career advancement
2.D Be visible to potential staff and students as a place of work and study that values EDI
OBJECTIVE 3: AN INCLUSIVE AND EQUIitable STUDENT EXPERIENCE

To ensure that our commitment to equity, diversity and inclusion extends to and is reflected in the experience of our students at all levels.

Strategies:
3.A Ensure a positive classroom experience for all our undergraduate students, including those studying majors outside our Department; and a positive workplace experience for all our Higher Degree Research (MRes and PhD) students
3.B Promote an equal opportunity for all our students in their studies, regardless of external circumstances
3.C Ensure that all teaching staff (including sessional staff) act in accordance with our EDI goals, and are encouraging of the same in others

OBJECTIVE 4: A LEADER IN EDI PRACTICE

To maintain and extend our role as a leader in equity, diversity and inclusion within the University, and build our reputation as a successful example of an equitable, diverse and inclusive workplace within our professional community.

Strategies:
4.A Actively pursue external professional EDI accreditation of our workplace and EDI activities, including but not limited to the ASA Pleiades scheme
4.B Ensure the Department’s EDI activities are visible both within and external to the University, including representation on University committees and national bodies, and foster Department members to become ambassadors for EDI
4.C Deepen partnerships with University and discipline peer organisations to share and learn strategies
4.D Operate our outreach program to place due emphasis on under-represented and/or disadvantaged groups in schools and the community

OBJECTIVE 5: AN EDI-AWARE AND ACTIVE WORKFORCE

To build a Department community with awareness, motivation and skills to actively promote and implement equity, diversity and inclusion principles in our spaces.

Strategies:
5.A Maintain a visible presence for EDI committee and EDI issues, resources, events and opportunities
5.B Promote University and Faculty-level initiatives and policy in EDI
5.C Provide or facilitate access to training opportunities for all staff and students
5.D Support staff to up-skill in a range of relevant areas

RESOURCES AND LINKS

Department of Physics and Astronomy website: https://goto.mq/8q
Department of Physics and Astronomy EDI website: https://goto.mq/8r
Macquarie University EDI website: https://www.goto.mq.edu.au/8s
Schedule 1: Equity Diversity Inclusion - Action Plan 2019-2020

This schedule outlines the major planned actions addressing the Strategic Plan over the next 18 months to the end of 2020. While the Strategic Plan is expected to remain largely unchanged over its lifetime, this Action Plan is to be considered a living document as new ideas and opportunities emerge. It is intended that all actions listed below will be addressed by the end of 2020. Reports of progress against the actions including any amendments or additions made will be distributed to the Department in December 2019, June 2020 and December 2020. An Action Plan for 2021 will be established by December 2020.

Supporting Strategies

Objective 1: A Welcoming and Inclusive Working Environment

To nurture a welcoming and inclusive working environment, where all Department members feel comfortable and safe, with equal access to opportunities for career advancement and professional support.

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<thead>
<tr>
<th>Strategic Element</th>
<th>Action</th>
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<tr>
<td>1.A Identify and address remaining inclusion barriers that impact our female staff and students</td>
<td>1.A.i Run focus groups on inclusion barriers experienced within our female staff and student cohorts, esp. as relating to 2018 Department Culture Survey results; develop actions 1.A.ii Assess relevant results of University-level “Your Say” Survey, identify key concerns 1.A.iii Run second Departmental Culture Survey in 2020-S2, interpret results, quantify improvements, identify remaining and new barriers</td>
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<td>1.B Identify and address ongoing inclusion barriers that prevent equal opportunity for all under-represented groups, including those impacted due to LGBTIQ+ identity, cultural and linguistic background, faith or faith-free identity, and physical or mental disability, acknowledging the increased barriers that are associated with intersectionality</td>
<td>1.B.i Assess relevant results of University-level “Your Say” Survey, identify key concerns 1.B.ii Run second Departmental Culture Survey in 2020-S2, interpret results, quantify improvements, identify remaining and new barriers 1.B.iii Establish EDI anonymous suggestion box and anonymous online suggestion form 1.B.iv Engage with Walanga Muru to establish a schedule for Cultural Awareness training in Department</td>
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<td>1.C Increase visibility and reach of existing support systems and build additional capacity in this area</td>
<td>1.C.i Restore Department early career researcher mentoring scheme 1.C.ii Maintain Department EDI site and associated resources; promote our EDI program and resources on Department landing page 1.C.iii Maintain visibility and currency of our EDI support staff and Ally Network members 1.C.iv Maintain up-to-date access to internal and external resources and ensure promotion to staff and students 1.C.v Engage with University to improve inclusiveness of physical facilities and resources (e.g. gender-neutral toilets, carers spaces)</td>
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<td>1.D Promote and celebrate the diversity within our Department and community</td>
<td>1.D.i Establish a calendar of events that recognises and celebrates a diverse range of cultural backgrounds. 1.D.ii Encourage Ally Network members to display the logo prominently in their work/study space, and in lecture slides (if teaching) 1.D.iii Promote inclusive and culturally-sensitive approach to meetings, social workplace gatherings and celebrations (e.g., not all with alcohol, and with awareness of religious observances) 1.D.iv Include an Acknowledgment of Country in Department events and on iLearn for each unit</td>
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**OBJECTIVE 2: RAPID IMPROVEMENT IN DIVERSITY MEASURES**

*To achieve significant improvement in gender balance and other diversity measures in all parts of our operation at an accelerated rate.*

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<td><strong>2.A</strong> Demonstrate ongoing and contemporary understanding of and adherence to best practice in recruitment</td>
<td>2.A.i Establish and enforce hiring practices beyond University minimums (e.g., job ad text is non-gendered and promotes our culture; panel can demonstrate active identification of female candidates for academic/research/technical roles and male candidates for administrative roles; panel members and hiring manager have read MQ Inclusive Recruitment document before commencing recruitment for any role) 2.A.ii Establish and maintain equitable and inclusive recruitment practices when hiring sessional staff 2.A.iii Publish our established practices on our Department site</td>
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<td><strong>2.B</strong> Engage with the University on developing new approaches to recruitment that advance EDI</td>
<td>2.B.i Trial blind long- and short-listing in all recruitment 2.B.ii Discussion of female-targeted academic/research recruitment with Faculty and University 2.B.iii Establish a clear process in our Department for authorisation of appointments above lowest pay step 2.B.iv Engage with faculty on improving appointment-step policy and processes</td>
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<td><strong>2.C</strong> Ensure equity in support for seeking career advancement</td>
<td>2.C.i Track distribution of candidates seeking and being mentored for promotion, OSP, awards and address any issues identified through consideration of the distribution 2.C.ii Engage with our Department research centres and HDR supervisors to ensure equity in provision of resources and support for opportunities such as projects or collaboration/engagement with University and industry partners 2.C.iii Engage with professional staff to ensure awareness of and take-up of career development opportunities internal and external to the University</td>
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<td><strong>2.D</strong> Be visible to potential staff and students as a place of work and study that values EDI</td>
<td>2.D.i Maintain a visible presence of our EDI actions and goals on our Department landing site 2.D.ii Promote EDI values through our outreach program, public engagement and public presence (news, social media, banners/posters on open days etc.)</td>
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**OBJECTIVE 3: AN INCLUSIVE AND EQUITABLE STUDENT EXPERIENCE**

To ensure that our commitment to diversity, equity and inclusion extends to and is reflected in the experience of our students at all levels.

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| **3.A** Ensure a positive classroom experience for all our undergraduate students, including those studying majors outside our Department; and a positive workplace experience for all our Higher Degree Research (MRes and PhD) students | 3.A.i Conduct focus groups with students to determine what improvements or changes they want to see in our classrooms and research teaching spaces  
3.A.ii Establish a student culture statement to be adopted in our Department; workshop with students and staff to determine content  
3.A.iii Promote the statement both internally and externally (i.e. on website, through email, in classes) |
| **3.B** Promote an equal opportunity for all our students in their studies, regardless of external circumstances | 3.B.i Work with student groups, MQ Wellbeing, Walanga Muru and minority cohorts to identify actions  
3.B.ii Engage with faculty on improving student experience and inclusion for those affected by external circumstances, including physical or mental health concerns and carers’ needs |
| **3.C** Ensure that all teaching staff (including sessional staff) act in accordance with our EDI goals, and are encouraging of the same in others | 3.C.i Ally Network members indicate that status on lecture notes  
3.C.ii Increase/sharpen training for sessional staff on adhering to EDI principles in labs/tutorials/research teaching spaces  
3.C.iii Support lab supervisors and research student supervisory teams to monitor and address departures from expected standards of behaviour in labs/tutorials/research teaching spaces |
**OBJECTIVE 4: A LEADER IN EDI PRACTICE**

To maintain and extend our role as a leader in equity, diversity and inclusion within the University, and build our reputation as a successful example of an equitable, diverse and inclusive workplace within our professional community.

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| **4.A** Actively pursue external professional EDI accreditation of our workplace and EDI activities, including but not limited to the ASA Pleiades scheme | 4.A.i Maintain our Silver Pleiades status and work towards a competitive Gold Pleiades Award application  
4.A.ii Maintain and expand program of monitoring EDI measures: staff profile in academic, research and professional cohorts; distribution of award nominations; seminar diversity, etc.  
4.A.iii EDI committee members to keep up to date on key documents: National GE Strategy, SAGE submissions, Women in STEM Decadal plan etc, and circulate to the Department |
| **4.B** Ensure the Department’s EDI activities are visible both within and external to the University, including representation on University committees and national bodies, and foster Department members to become ambassadors for EDI | 4.B.i Maintain representation of Department in Gender-Equity Self-Assessment Team (GESAT)  
4.B.ii Maintain presence in ASA IDEA Chapter Steering Committee  
4.B.iii Identify opportunities for Department members to engage with EDI activities within national committees, e.g. the Australian Academy of Science; Science & Technology Australia; AIP, etc. and encourage nominations  
4.B.iv Ensure Department representation in EDI committees of the Centres of Excellence with which we work |
| **4.C** Deepen partnerships with University and discipline peer organisations to share and learn strategies | 4.C.i Invite EDI-active members of other departments to at least half of our EDI meetings and make reciprocal visits  
4.C.ii Host at least two cross-department social events to bring EDI committees together.  
4.C.iii (Co)-host an EDI-focused workshop, e.g. through ASA IDEA, Ally Network, etc.; ensure that issues faced by both academic and professional staff are addressed |
| **4.D** Operate our outreach program to place due emphasis on under-represented and/or disadvantaged groups in schools and the community | 4.D.i Generate a set of guiding selection principles for school/group engagement (e.g. socio-economic status, rural, indigenous, low university enrolment, etc.)  
4.D.ii Build and maintain a directory of schools/groups based on these criteria, and communicate this list to all department staff.  
4.D.iii Establish relevant contacts at each target school/group, and keep these contacts informed of our relevant activities.  
4.D.iv Maintain record of outreach activities from the Department, in terms of school/group, number of students/people engaged, feedback.  
4.D.v Continue to monitor diversity of coverage in our social media presence and other publicity |
**OBJECTIVE 5: AN EDI-AWARE AND ACTIVE WORKFORCE**

*To build a Department community with awareness, motivation and skills to actively promote and implement equity, diversity and inclusion principles in our spaces.*

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| **5.A** Maintain a visible presence for EDI committee and EDI issues, resources, events and opportunities | **5.A.i** Keep Department EDI noticeboards up to date  
**5.A.ii** Publicise EDI work in Department newsletter, Department and town hall meetings and on social media platforms  
**5.A.iii** Feature visible markers such as EDI posters at Open Day and similar events |
| **5.B** Promote University and Faculty-level initiatives and policy in EDI | **5.B.i** Engage strongly with development and operation of new Faculty EDI committee  
**5.B.ii** Promote key University policy documents and discuss at Department or relevant committee meetings |
| **5.C** Provide or facilitate access to training opportunities for all staff and students | **5.C.i** Seek at least one and preferably two external training events in an aspect of workplace culture annually  
**5.C.ii** Promote training opportunities from Ally Network and other on-campus groups to all staff and students |
| **5.D** Support staff to up-skill in a range of relevant areas | **5.D.i** Identify and facilitate staff inclusion in relevant training (e.g. responding to disclosure, mental health first aid, disability awareness etc.)  
**5.D.ii** Support staff travel to strategically important off-site/intercity training |
Schedule 2: Department Workplace Culture Statement

Our Workplace Culture statement was formally adopted by the Department in late 2017.

_The Department of Physics and Astronomy pays respect to the original custodians of the land on which Macquarie University resides and to indigenous staff and students who study and work among us._

_We embrace Macquarie University’s commitment to principles of equity, diversity, and inclusion. We recognise these principles as core to our mission of fostering excellence and increasing impact in our research, teaching and community engagement._

_We aim to be welcoming and supportive of all staff and students regardless of gender and sexual identity, ethnic and cultural background, disability, age, family/carer responsibilities, political affiliation, and religious belief. This commitment underlies our approach to recruitment, mentoring, promotion and celebration of success, and extends to all Department members: academic staff, professional staff, students and visitors._

_We commit to an ongoing culture of improvement, measuring and reflecting on our progress, active pursuit of internal feedback and external assessment, and promotion of these values within our Department, to the University and in our wider academic community._
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**Schedule 3: Background and Department Record**

**OUR WORKPLACE PROFILE**

Macquarie University’s Department of Physics and Astronomy hosts academics, researchers and higher degree research (HDR) and undergraduate students in the disciplines of astronomy, astrophysics, astrophotonics, photonics and laser physics, biophotonics, and quantum physics. Teaching and research labs are supported by a professional technical team, and the Department is supported by a team of professional administrative staff. As of July 2019, we number 79 staff and 67 HDR students. At time of writing, in session 2 2019, over 100 undergraduate students are currently attempting our majors, and nearly 850 undergraduate students at Macquarie University will have taken at least one physics or astronomy subject in 2019.

As of July 2019 around 20% of our academic and research staff identify as female, compared to 50% for professional staff. The representation of females among our undergraduate and HDR cohorts are 33% and 36% respectively. The gender balance of seminar speakers across the department is around 30%, which has improved by more than 10% since 2016.

The Department encompasses a range of family types, ages and sexual orientations, as well as religious and spiritual beliefs. Both our faculty and students come from a variety of ethnic and cultural backgrounds. More than half our staff indicate a country of birth outside Australia, with 21 countries represented across Europe, Asia and the Americas. Similarly, more than half of our HDR students are international, with the proportion in the PhD cohort alone being close to 70%.

**OUR ACHIEVEMENTS**

Since 2017, the Physics and Astronomy Equity and Diversity Committee (EDC) has met regularly to assess the progress of the Department. The committee works to identify approaches to promote awareness and engagement around diversity, equity and inclusion amongst our staff, students and community. The Department committee has led a number of initiatives and measures, with highlights below.

- Our Workplace Culture statement was developed in consultation with our staff, and was formally adopted in late 2017. Our statement is included in our job advertisements, is available on the Department website and appears in printed form at the front of the Department in a high-traffic area.
- The annual Diversity in Astronomy Workshop of the Inclusion, Diversity and Equity in Astronomy (IDEA) Chapter of the Astronomical Society of Australia was held at Macquarie University in 2017. The workshop was co-organised and part sponsored by the Department, with many staff and students of the Department in attendance.
- We conducted an inaugural workplace culture survey within Department in September 2018, which served as the pilot for a University-wide survey. Our online Department survey attracted responses from 64% of the potential participants, including staff and HDR students. Results were analysed by the MQ Office of Workplace Equity and Diversity (OWED) and have enabled the EDC to develop a strategic plan of action to address the identified concerns and issues.
- We are developing a Persons of Contact system for the informal reporting of concerns (with regard to e.g. equity, disability access, harassment or bullying) held by any student or staff member within the Department. Posters displayed across Department buildings show who staff or students can reach out to, and how.
- We implemented and granted a family travel fund in 2017 and 2018 to help academics and young researchers with childcare or carers needs. The fund assisted with care expenses associated with work-related travel. The fund has since been closed as it has been superseded by one now offered across the Faculty.
- Department staff and students increasingly undertake EDI-related training available within the University. Fifteen members of the Department (including seven in the EDC) are members of the MQ Ally Network, two have received training in managing mental health in a tertiary setting, and four have received cultural awareness training (part of the IDEA workshop hosted by MQ in 2017).
Four have completed training in matters related to sexual assault and sexual harassment on campus, as part of Macquarie University’s “Respect. Now. Always.” campaign.

- Members of the EDC have been recognised as leaders in issues of equity and diversity within the University and were invited to present the Committee’s work on Pleiades Award and IDEA Workshop at the MQ Gender Equity Summit in March 2018. Our efforts have been featured in MQ University news.
- Since 2016, the female representation in undergraduate and HDR cohorts, as well as seminar speakers shows a clear upward trend; it is believed that a positive impact of STEMM initiatives in Department and Faculty are starting to be seen here.
- The Department received the Silver Pleiades Award following an application to the Astronomical Society of Australia for external evaluation of our continued efforts in equity, diversity and inclusion. The application for the Silver Award was submitted in late 2018 and follows from our successful application for the Bronze Award in 2016.