School of Physics and Astronomy, University of Nottingham

Summary of Progress against Juno Principles

INTRODUCTION

In the School of Physics and Astronomy a commitment to Equality, Diversity and Inclusion (EDI) is embedded in all aspects of our work. We are particularly proud of the work we have done to change the demographics of the School over the last six years; for example, our undergraduates are now 31% female, and our Professors are 19% female, up from 24% and 15% respectively in 2017. For both groups the percentage of women is well above the HESA average for Physics departments in the UK (26% female undergraduates and 14% female Professors). Other highlights include running the first national Postgraduate Women in Physics conference (PGWiP), and an annual series of EDI colloquia with expert speakers.

This document makes our case for renewal of our Juno Champion award. We begin by describing changes in the School and University since 2017. We then describe the highlights of our progress against the six Juno Principles. Appendices provide (A) a summary of abbreviations used, (B) a brief description of the School, (C) membership of the EDI committee and Self-Assessment Team (SAT).

The School's Equality, Diversity and Inclusion webpage can be found at: https://www.nottingham.ac.uk/physics/equality-diversity-and-inclusion/equality-diversity-and-inclusion.aspx

CHANGES SINCE 2017

In 2017, Prof. Clare Burrage took over as Director of EDI (DEDI) for the School from Prof. Penny Gowland. In 2022, Dr. Andrew Rushforth was appointed as the new DEDI. The outgoing and incoming Directors shared the role for a period of six months to ensure continuity and support. In 2020, there was a change in the Head of School (HoS) from Prof. Michael Merrifield to Prof. Mark Fromhold.

In 2018, the University of Nottingham (UoN) appointed our first Pro-Vice-Chancellor (PVC) for Equality, Diversity, Inclusion and People, this role is now held by Prof. Katherine Linehan. The PVC is a full member of the University's Executive Board, and she is coordinating many institutional initiatives working with a team of full-time EDI coordinators.

There have been two major disruptions to our work. Project Transform was a university wide restructuring initiative that began in 2014; it has removed Administrative, Professional and Managerial (APM) staff from the School and resulted in increased workloads for staff. Covid-19 has also had a significant impact on the School, including on staff and student workloads and welfare, and on our ability to deliver events.

JUNO PRINCIPLE (JP) 1. ROBUST ORGANISATIONAL FRAMEWORK

Governance Structure. The main forum in which EDI issues and policies are discussed in the School is the EDI committee, which meets three times a year, chaired by the DEDI. The committee has representation from all staff and student groups at a variety of levels, including the HoS and Head of Operations as well as Postdoctoral Researchers (PDRAs), post-graduate and undergraduate student reps. We endeavour to ensure that the make-up of this committee is diverse in terms of personal characteristics. The Self-Assessment Team (SAT) for our Juno and Athena Swan

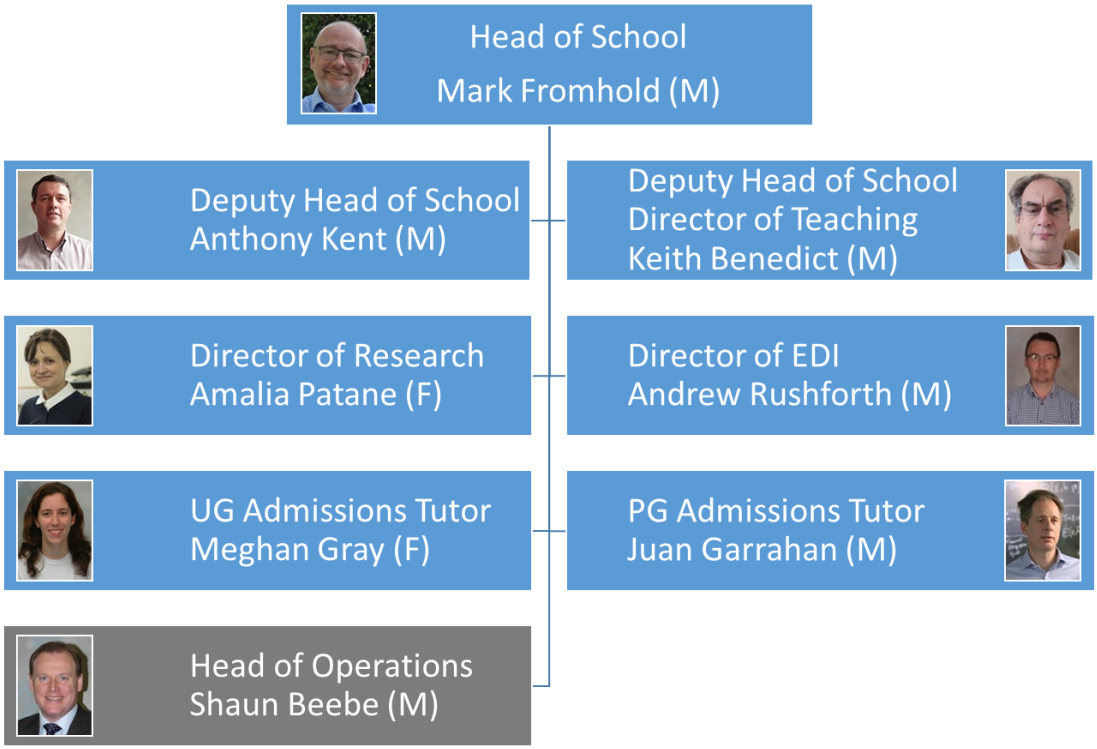

Figure 1: School management structure, showing role titles as well as the name and gender (in brackets) of the current role holder. Grey indicates a role that sits jointly within the Schools of Physics and Astronomy and Chemistry. Note that the role of Deputy Head of School is currently split in two with Keith Benedict responsible for Education and Student Experience (ESE) as well as holding the role of Director of Teaching and Anthony Kent for Research and Infrastructure.

awards, has focused on the delivery of our previous Action Plan and the preparation of our new one. The SAT reports to the EDI committee, and is chaired by the DEDI. The frequency of SAT meetings has varied but was never less than three times a year. Details of the current membership of both committees can be found in Appendix C.

The DEDI sits on the School Operations Group (SOG), the main executive body in the School, which meets fortnightly, chaired by the HoS. The members of this committee are shown in Figure 1. EDI is a standing item on the agendas of the Staff, Postgraduate and Outreach Committees, and there is cross representation between the EDI committee and the Research and Teaching Committees.

The DEDI reports to the Faculty of Science (FoS) People and Culture committee, which is chaired by the PVC for the FoS, and to the PVC for EDI and People. This enables discussion and sharing of best practice between the schools in the FoS, as well as providing a route through which issues best addressed at the level of the Faculty or University can be raised. Burrage was a Co-Investigator on the University's STEMM-Change project (funded by an EPSRC Inclusion Matters grant), which delivered a range of projects to address hidden barriers to progression and success, some of which are discussed further below. The outputs of this project, including a database of resources, are available at https://www.stemm-change.co.uk/.

Feedback. We run focus groups every two years with female undergraduate and post-graduate students (as well as BAME and LGBT+ students). One such focus group lead to the suggestion for the recruitment pilot we are currently running (discussed under Principle 2), and another lead to the creation of a new Faith and Well-Being room in

Physics (discussed under Principle 4). Feedback from students also comes to the EDI committee through representation on the committee and on SAT, through the student Physics Society, and through the Senior Administrator for ESE who sits on the EDI committee.

Data Analysis and Collection. We have a School Data Officer, Dr. Mike Swift, and the University has introduced new data collection and analysis tools, which allow data to be disaggregated by gender, as well as ethnicity and reported disability status. Some examples of our analysis of this data are discussed later in this document. EDI data is discussed at regular intervals as a standing item on committees, complementing the qualitative data collected through the focus groups described above.

Reviewing our progress has highlighted that there are areas where we do not keep formal records, and so cannot interrogate fully e.g. the gender of staff that are nominated for prizes. This will be addressed in Action 1.2.

Resources. Time is allocated in the School workload model for all members of the EDI committee with additional allocation for the DEDI. The amount of time allocated is currently under review (Action 1.3). While we have not had a formal budget allocation for EDI activities, events are anticipated every year. This includes financial support ranging from refreshments for networking events, through honoraria and travel expenses for invited speakers, to funding for the PGWiP conference. Every EDI event we have proposed has been supported and facilitated financially by the School. Since the visit of the Juno Panel in November 2022, the School has committed to continue to provide financial support at this level for EDI events in future.

We have also had the opportunity to bid for funding for EDI activities from the University's EDI budget. In this way, we have secured additional funding for the PGWiP conference, and for the Sixty Ideas outreach project, which aims to help non-specialist teachers teaching Physics A-level, by linking topics on the curriculum to videos on our Sixty Symbols YouTube channel, further details can be found at: https://www.nottingham.ac.uk/physics/sixtyideas/index.aspx .

JP 2. APPOINTMENT AND SELECTION

Success in external recruitment is broken down by gender in Table 1; this combines recruitment to all roles in the School that were advertised between 2017 and 2022 in order to get a sufficiently large data set. We see no evidence of bias or inequality at any stage in our process, but we continue to monitor the data.

The gender balance of our recruitment to posts at level 5 was highlighted in the feedback on our last application as an area in need of attention. Since 2017, the school has agreed a new recruitment policy, in which we commit to inviting people from underrepresented groups to apply for externally advertised positions. Part of the STEMM-Change project[1] addressed how biases in the use of language can impact negatively on recruitment, promotion and career progression, as a result of which we have changed the wording of job adverts. The UoN has introduced compulsory training for all staff involved in recruitment, which includes discussion of potential biases. HR ensures that the panel have had this training before interviews can proceed.

[1] https://www.stemm-change.co.uk/wp-content/uploads/2021/06/Transforming-the-Language-of-Exclusion-and-Bias-in-Recruitment-June-2021x.pdf

Gender	Success rate		
	Application to Offer	**Application to Shortlisting**	**Shortlisting to Offer**
Male	7%	19%	35%
Female	7%	19%	37%

Table 1. Success rates for men and women at different stages or the recruitment cycle for jobs in the School between 2017 and 2022. The total number of applications was 2648 (of which 68% were men and 28% were women). Those whose gender is recorded as 'unknown/prefer not to say' are not included because of their small numbers.

The impact of these changes can be seen by looking at the data for recruitment to roles at level 5. In our last application, 6% of shortlisted candidates for such roles were women compared to 18% of shortlisted candidates (13 out of 72) in the period 2017-2022. In this period, there were 392 applications in total, of which 72 (18%) were from women, and 22 offers were made, of which 3 (14%) were to women. Although we note the limitations of performing a statistical analysis on a small sample, we are pleased that this represents a significant improvement since our previous award.

During this period, the School has only recruited externally for permanent academic jobs in certain research fields, and a number of those have been in areas where women are particularly under-represented globally, for example Condensed Matter Theory. 17 offers were made, and 2 (12%) of these were to women. Other research groups have brought in new staff through externally and internally funded fellowships, and our recruitment policies apply to the process of attracting and supporting candidates for fellowships. The success of this combined approach means that now 35% of academic staff at level 5 are women, see Figure 2.

The School has been particularly successful in recruiting staff through the UoN funded Anne McLaren Fellowships for outstanding female researchers in STEM, which are linked to a permanent academic post. Two members of the school currently hold these fellowships (Russell and Yan), and three former Anne McLaren Fellows are now Professors in the School (Burrage, Gray and Hatch), showing the success of this scheme in both attracting and retaining female staff. Overall, 38% of applications supported by the School for UoN fellowship schemes were female.

A key priority for the School remains achieving a larger pool of female applicants when jobs are advertised externally. In 2022, we began a pilot project in which, at the short listing stage, applicants are given the opportunity, outside of the interviewing process, to talk to current members of staff who are female, BAME, LGBT+ and who have disabilities. A statement that this will happen will also be included in job adverts**.** We hope this will demonstrate to applicants the supportive and inclusive environment of the school, and thus encourage applications. Review of this pilot and resulting future actions form Actions 2.1.

JP 3. CAREER PROGRESSION AND PROMOTION

Pipeline. The academic pipeline within the School in 2022 is shown in terms of numbers of men and women in Table 2, and percentages of men and women in Figure 2. We are encouraged that the percentage of women at each stage remains approximately constant, or increases slightly, from undergraduate to level 5. The school currently has

Stage	M	F
Undergraduate Students (UG)	649	271
Postgraduate Research Students (PGR)	88	33
R+R&T Level 4 (PDRA)	34	12
R+R&T Level 5 (Assistant Professor)	14	8
R+R&T Level 6 (Associate Professor)	21	2
R+R&T Level 7 (Professor)	21	5

Table 2. Numbers of Male (M) and Female (F) students and staff at different stages of the academic pipeline in the School in 2022.

a low number of women at Level 6, this is due to recent promotion of staff to level 7 and we expect further promotions of staff currently at level 5 to redress this imbalance at level 6 in the near future. 19% of staff at Level 7 (Professors) are women, which compares favourably to the HESA 2020/21 benchmark of 14%. We believe that our success here is because the School rarely recruits staff at this level externally, instead preferring to support and mentor staff to grow into these roles.

Increasing the number of female undergraduates in the school has been a focus of our work since 2017, led by our UG Admissions Tutor. We are pleased that both the number and percentage of female students has increased during this time, and is now significantly above the latest HESA benchmarks, see Figure 3. In 2022/23 we achieved a School record of 33% of our new undergraduate intake being female. We believe our team of undergraduate ambassadors have been key to making applicants feel like they belong in our School. These students represent the School at Open Days and UCAS Visit Days, and give talks about their experiences. The ambassadors can speak to a diverse array of personal backgrounds, and conversations with the ambassadors are helpful in enabling applicants to judge whether they would find the University and the city a supportive and welcoming environment. For example, at the September 2022 Open Day a parent sought out an Ambassador after her talk because "*I can tell by your accent you're not the usual posh sort of student"*, they then proceeded to have a lengthy conversation about what it was like to come from a council estate to study at Nottingham.

Our female students thrive in our degree program, and between 2017 and 2022, 94% of our female students have gone on to achieve a 'good degree' (1st or 2:1) compared to 87% of our male students.

The number of PGR students in the School has remained approximately constant since 2017 but the percentage of female PGR students has declined from 32% in 2017/18 to 26% in 2021/22, see Figure 4. This is correlated with a decline in EU students from 21 in 2017/18 (10 of whom were female) to 6 in 2021/22 (all of whom were male), which we believe to be due to Brexit. We speculate that the higher proportion of female students in our EU (and also in our Overseas) PGR students was due to our recruitment from countries where women are much more likely to study physics than in the UK, e.g. Italy where 41% of physics graduates are female[2]. Our increasing percentage of female UG students means that we have the potential to increase our percentage of female Home PGR students in the medium term, see Actions 3.2.

[2] https://aip.scitation.org/doi/10.1063/1.3137735

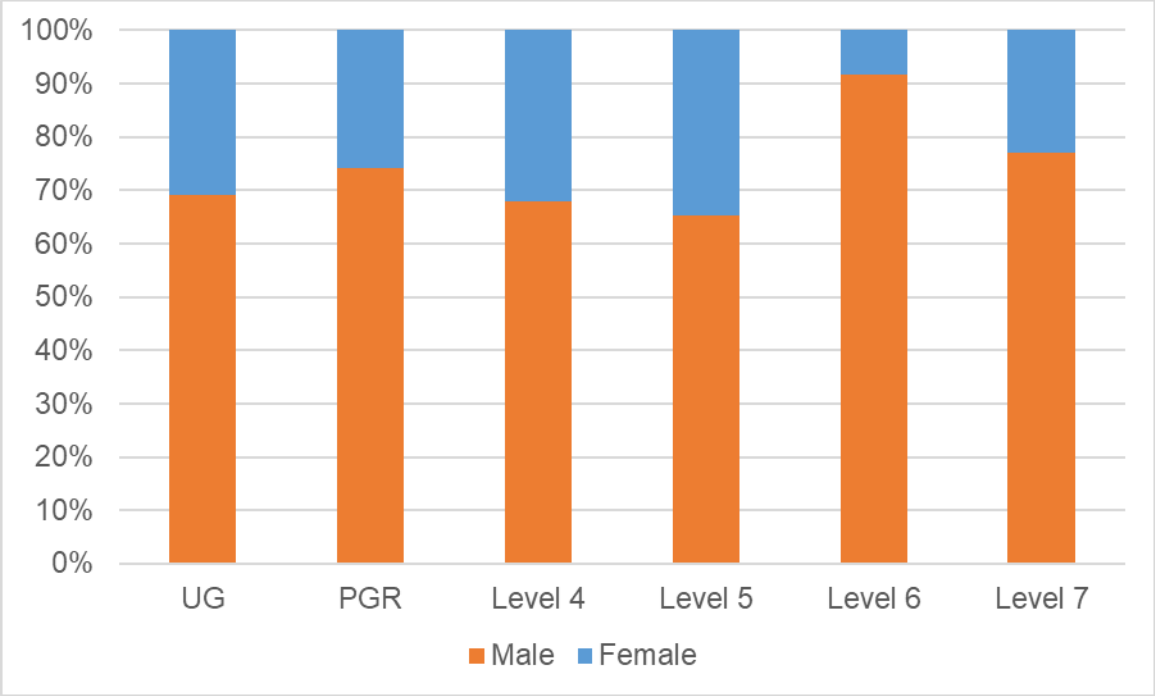

Figure 2. Academic Pipeline. Percentages of Male (orange) and Female (blue) students and staff in the School in 2022. Staff included are those on R and R&T contracts.

Appraisal. Advice on career development is provided through the University's Appraisal and Development Conversation (ADC) process which is applied uniformly to all research and academic staff (including PDRAs), as well as to technical and APM staff. All staff have biannual meetings with their Appraiser to discuss progress and future priorities, tailored to career stage (the Appraiser and Line Manager roles are separated ensuring that staff are given impartial guidance). In 2022, only 6 out of 170 scheduled appraisal meetings did not go ahead, reasons for this included maternity leave and staff being overseas. We take care to check that if an appraisal is missed for such reasons, one is sure to take place the following year.

Promotion. The UoN has an annual promotion round for research and academic staff. Staff are offered opportunities to discuss career progression with the HoS, who also discusses promotion with any staff who have not been promoted in the last 5 years. Since 2017, 9 women in the School have applied for promotion, and all have been successful, this compares to 25 promotion applications from male staff, of which 22 were successful.

Our successful promotion cases include PDRAs, for example, Dr Rebecca Dewey was promoted to Level 5 in 2021. Speaking about her experience, she said*:*
"[I] kept falling into the trap of making it sound like I had only achieved things "under the wing" of supervisors and mentors. I spoke to the head of department and head of school, and both were instrumental in turning my application around to reflect the aspiring independent researcher I am! Further, what mattered to me so much was knowing I had their support and that I was doing the right thing by applying. I wouldn't have got through the process without them and have learned so much for future promotions opportunities – and to help others through the same process!"

The former DEDI, Burrage, was promoted to Professor in 2019, and her EDI work formed a key part of that application, allowing her opportunities to evidence

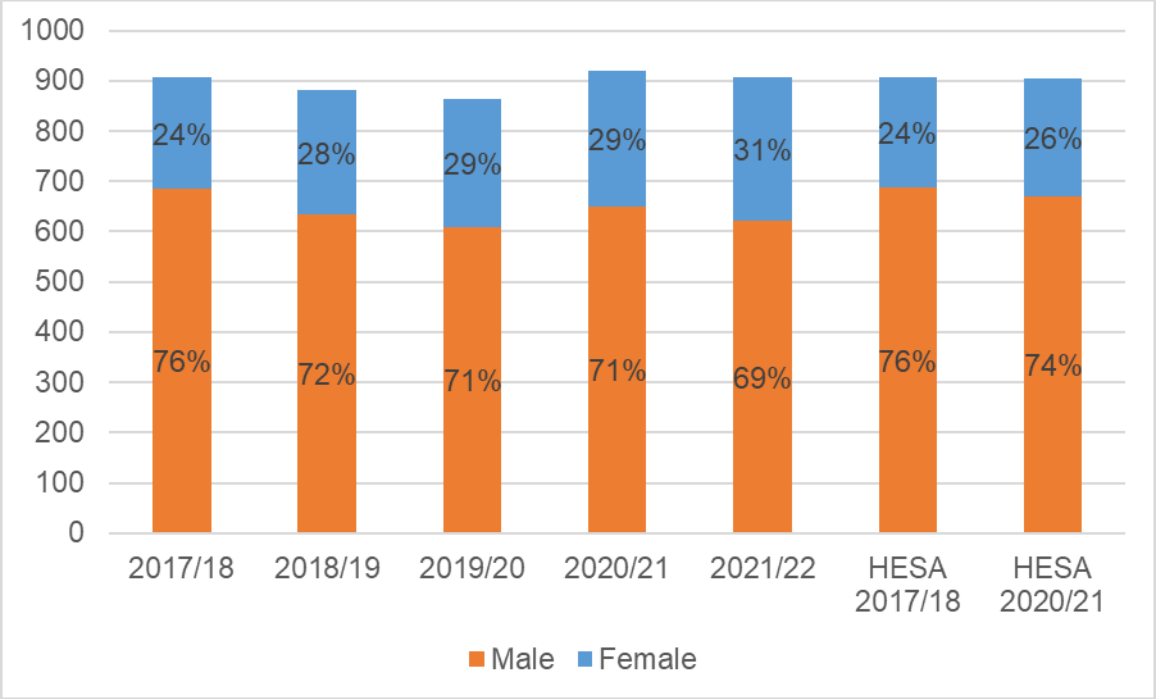

Figure 3: Number and percentage of male and female UG students, compared to HESA benchmark data (normalised to the size of our population in 2021/22).

Improvements to student experience, as well as School and University service, and engagement with external stakeholders (through STEMM-Change). Supporting comments from the then HoS included:
"On the administrative side, Clare's contribution is also already at professorial level – her role as Director of Diversity is viewed as one of the key senior management positions in the School, … She has brought dynamism and innovation to the role, challenging the School to justify its Athena Swan Silver Award, but also taking on broader challenges to EDI on LGBT and BME issues."

Technical Services (TS), Teaching (T) and Administrative, Professional and Managerial (APM) Staff. Career development for TS and T staff has been a focus of our work since 2017. Nearly all the research TS Level 3 posts have been regraded to TS Level 4. We have recruited three apprentices, all of whom have successfully completed their HNDs and have been made permanent members of staff, and two have gone on to complete degree apprenticeships. We have also provided vocational training for TS staff. The School is a keen participant in the new Technicians Commitment of which UoN was a founding signatory. A Physics technician participated in a mentorship programme for technical staff from under-represented groups, which formed part of the STEMM-Change project.

Training opportunities are in place for Teaching only staff, and we have secured our first promotion of a member of teaching only staff to level 5. APM staff are supported to access the courses provided by the University and we now hold team building days for the APM team. Career progression for both APM and TS staff is trickier as promotion is not available and regrading is driven by business need not individual achievement.

Arrival and departure. On arriving, new staff are appointed a mentor within the existing staff in the School. At the end of fixed term contracts, staff are offered an interview with the Head of Operations or Senior Operations Manager covering career planning and

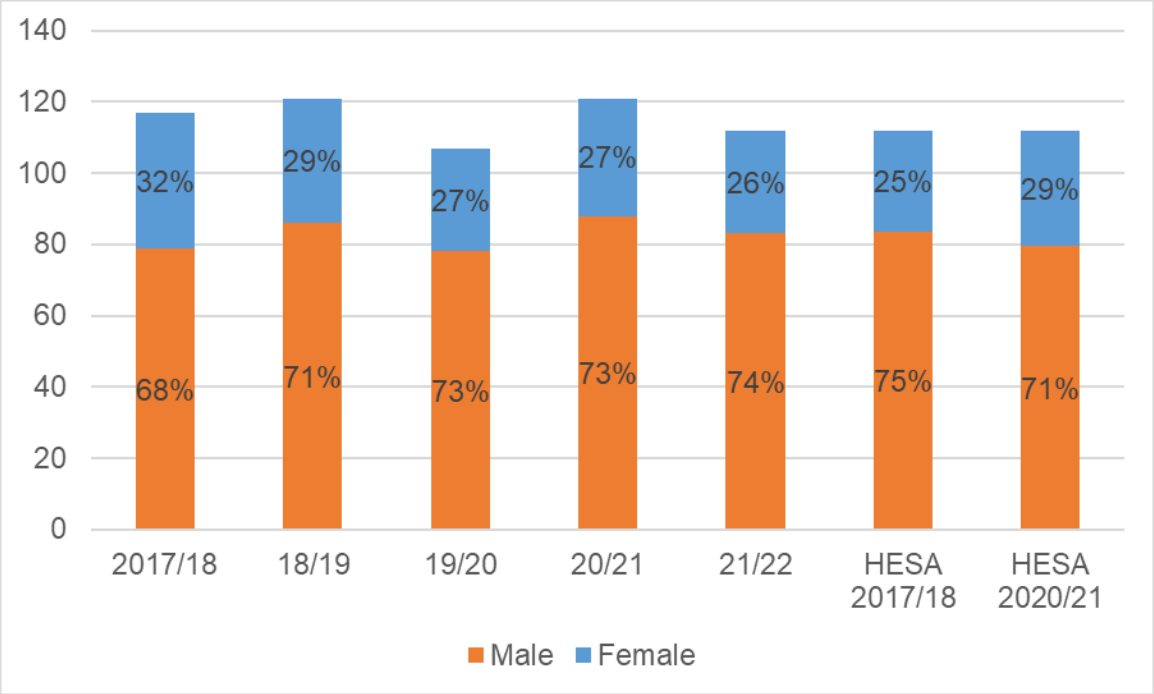

Figure 4: Number and percentage of male and female postgraduate research (PhD) students, compared to HESA benchmark data (normalised to the size of our population in 2021/22).

CV development three months before the end of their contract. This exit interview also affords us an opportunity to be informed of any problems, but currently only 50% of leavers take up these interviews. We aim to increase this percentage in Action 6.1, and extend the interviews to include all staff leaving the School.

Staff Feedback. Of the 37 members of the School who responded to the Athena Swan Survey, only four disagreed with the statement "My career progression aspirations are usefully discussed [in my ADC conversation]". Only one person disagreed with the statement "The current promotion process is transparent and fair". This is something we will continue to monitor and will investigate further in Actions 3.4.

JP 4. OPEN AND INCLUSIVE CULTURE

Events: Each year, one of the School colloquia is focused on an EDI topic. Past topics include outreach activities aimed at encouraging BAME students into physics, and the experience of LGBT+ researchers in the physics community. These are always well attended and have led directly to new initiatives and changes in the School including the development of our Work Experience Week, an expansion of our commitment to run a 'taster day' in our last action plan. This started in 2017 and has run every year, except 2020 and 2021 (because of the Covid-19 pandemic). Approximately 20 students take part each year, on average 56% of whom are female. Positive feedback from students who took part includes:
"*Everyone was lovely and welcoming, I have learned so much this week and met so many nice people and made some good friends." "Talking to people who study here and doing research here has made me even more passionate [about physics]."*

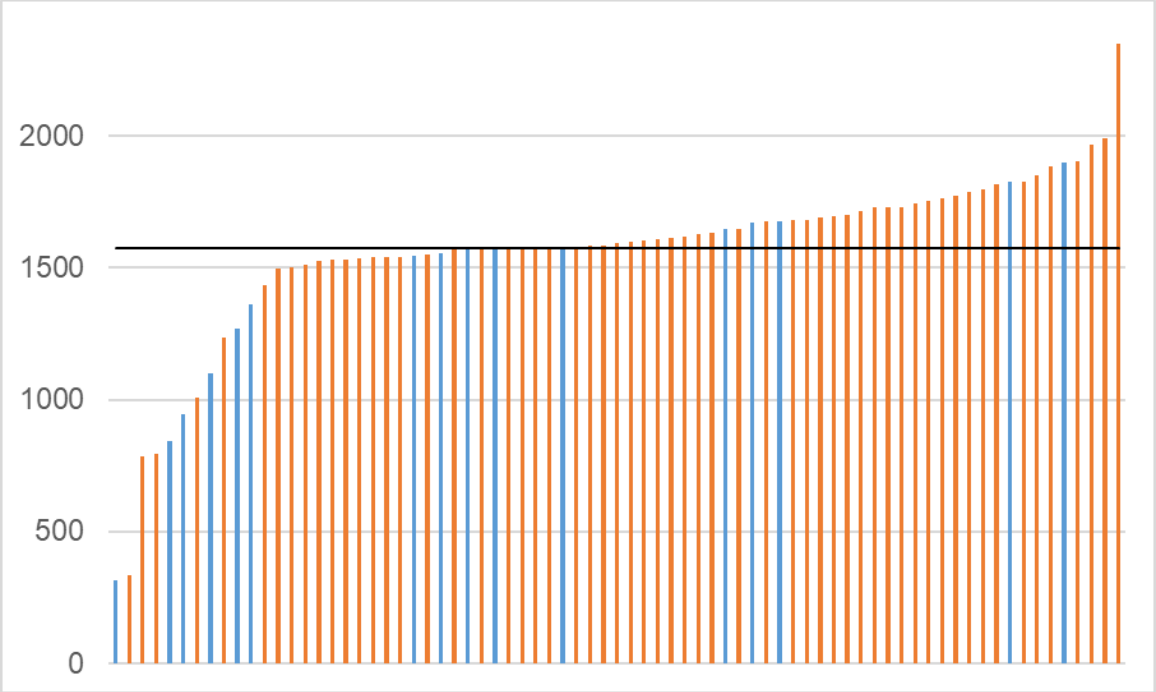

Figure 5. Histogram showing workloads in hours for staff in the School in 2022. Orange indicates a male member of staff and blue a female member of staff. The black line indicates the notional total full time workload of 1573.25 hours.

We held the first national PGWiP conference in March 2020[3]. The aim of the day was to inspire students, highlight potential avenues for their career post-PhD, both in academia and industry, and allow them to network. Students from all over the UK attended and presented their work in a poster session. Their feedback included:
"[We] left the day feeling uplifted and more confident in ourselves" "It … provided a safe space for women to talk about their experiences and struggles both inside and outside of academia." "It was excellent. Really grateful for the opportunity to meet such outstanding women, from the speakers and the audience."
We plan hold a second PGWiP in 2025 as a beacon activity, see Action 3.1.

We have provided a range of social events both online and in person, and these continued during the period of remote work and study due to the pandemic. Events have included quizzes, chess tournaments, and staff-student football and cricket matches, and are open to everyone in the school. We have not been able to capture details of attendance at all events, and this is a future action (Action 4.1). From 2022, we have had a new Senior Administrator for ESE to help with arranging social events, and a new Social Media Manager (SMM) to help advertise them, so we expect an expansion in the range of activities and attendance.

Networking. During the pandemic, School-wide networking groups were formed for women, BAME, LGBT+ and physicists with disabilities. These provide opportunities for mentoring, discussion, and a pathway to give feedback to the School. In the summer of 2022 our first Women in Research Networking Lunch was held, which included a discussion about taking maternity leave, and return to work. The School has Special Tutors for underrepresented groups including Women, BAME and LGBT+ physicists,

[3] https://pgwipnotts.github.io/

who are a point of contact for students who might feel more comfortable discussing challenges they are facing with a staff member with experience of similar issues.

School Facilities. Our Senior Technical Manager has integrated accessibility, inclusivity and wellbeing throughout an ~£800,000 programme of works to improve the Physics building since 2017. This includes the creation of an elevated walkway to provide wheelchair compatible access to our rooftop telescopes, gender-neutral and accessible toilet refurbishments, and a refurbishment of our student common rooms paying close attention to the needs of neurodivergent students (e.g. zoning and lighting). In response to feedback from students through focus groups and SAT, he has spearheaded the creation of our new Faith and Well-Being space (including securing ~£25,000 for necessary works), which is now considered a pilot project for the creation of these spaces across the University.

Workload. The School has had a workload model for more than 15 years, which has recently been superseded by a University scheme for all Research and Teaching staff in the school. All staff can view the details of this model and staff allocations on internal webpages. The workload allocation is reviewed each year, and staff have the opportunity to correct errors in time allocations. Staff with disabilities have their workload reduced in line with University policy. The histogram in Figure 5 shows the distribution of overall workloads in the School, compared to the notional full time workload of 1573.25 hours. The mean and median staff workloads in 2022 were respectively 1556.51 and 1593.77 hours. The high end of the workload distribution corresponds to the School's senior management, and we observe that staff working part-time are more likely to be women than men. We regularly monitor the workload distribution for gender bias.

We have run two staff stress surveys, both of which have shown that high workloads are one of the key causes of stress, particularly for academic staff. As a consequence of the stress survey, we have identified and implemented workload reductions, and it has provided evidence of the challenges we face in ongoing discussions with the Faculty and HR. We plan to address this further during our curriculum review, see Actions 4.3.

School Policies. Staff meetings, seminars and colloquia are held within the core hours of 9:30am – 4pm. The time and day of the week of recurring meetings is varied so that part-time staff are able to attend. We have introduced best practice guidance to ensure diversity of colloquium and seminar speakers; and the percentage of female speakers has increased from 20% to 60% since 2017/18.

EDI communication. To communicate EDI news and events to students we use lecture "shout-outs", emails, and the course reps (via the UG EDI Committee representative). In the last year we have appointed a new SMM who sits on the EDI committee, to help share information with current and prospective members of the school. The internal staff pages on Moodle contain information about School EDI policies, and signposting to University resources.

Reviewing responses to the Athena Swan survey, and consulting with members of the School, we have realised that much of the School is still not aware of the EDI work that takes place; a common comment was "*I had no idea so much was happening!*" Although we tried to address this with the EDI newsletter, readership remained stubbornly low, so new approaches are needed, see Actions 4.1.

Reverse mentoring. The STEMM-Change project supported a reverse mentoring scheme in which five Physics staff, including the HoS, have been paired with mentors

with protected characteristics or from underrepresented groups. This has led to School and University-level improvements in the process of making adjustments for colleagues with disabilities.

JP 5. FLEXIBLE WORKING

Maternity, Adoption and Shared Parental Leave. The School is strongly supportive of any staff member (including fixed-term and part-time staff) taking maternity, adoption, or shared parental leave. Staff are encouraged to do an assessment, with HR and the HoS, of the impact of leave on their career development. Research staff can take advantage of 'Keeping-in-Touch Days' and other forms of contact to maintain activities during leave. We strongly support University policies that offer a variety of routes back to work, including job-share, term-time or part-time working; and staff are also encouraged to use accrued annual leave to phase their return to work. We have introduced a mentoring scheme for staff taking maternity leave. It is School policy that no teaching is required for R&T staff in the first semester after return to work, and further tailored support is offered such as flexible hours and provision for breast feeding or pumping. The School offers paid maternity leave for Home/EU PGR students, and for Overseas students where the conditions of their funding permits.

We have published interviews with staff who have taken periods of maternity leave in our EDI newsletter. One of these interviews discussed the lack of access to resources for Research staff returning to work after maternity leave. As a result of which we introduced a new policy that such staff will be prioritised for a School funded PhD student.

The School has been part of a FoS "Return to Work Scheme", offering research staff, whose fixed-term contracts end while they are on maternity leave, the opportunity to return to the university on a six-month funded contract. This is intended to support them in obtaining their next academic role.

Since 2017, 8 members of staff in the School have returned from a period of maternity leave, 11 from paternity leave and 6 (2 women and 4 men) from shared parental leave. Of those who took maternity leave, one did not return to work, and two others returned but have since left the School. As far as we can tell given the small numbers, this picture is similar to that at other Schools in the FoS.

Childcare costs. A longstanding scheme operated by the School to support childcare costs during conference attendance has recently been superseded by University- and Faculty-led arrangements, which also cover research visits.

Flexible and part-time working. During the Covid19 pandemic many staff worked flexibly and from home. We have recognised the benefits this can provide to staff even as the pandemic recedes, and will continue to offer this, where possible, in future. For example, we currently have PDRAs in theoretical fields working largely remotely to avoid having to relocate away from their families.

Since 2017, the number of staff working part-time in the School has increased slightly from 22 to 24, including the current DEDI. Of the staff working part-time in 2022, 63% were women. To encourage a culture that accepts part-time working as a norm, some senior staff include their part-time status in their email signatures and our EDI newsletter has featured interviews with staff who work part-time. Comments from those interviews include *"It's been a very positive experience on my part." "colleagues have been very supportive. I'm totally open about the fact I work four days a week and I'm not coming*

in on Friday. I've had no problems at all." "The process was easy [and] pretty quick for a university process."

The School annually consults staff to ensure that the teaching timetable accommodates caring responsibilities; in an anonymous survey 23% of staff had taken advantage of this mechanism with support from the School. In addition, our shadowing system for teaching aims to minimise work-related stress on staff who must suddenly respond to personal or family crises.

JP 6. PROFESSIONAL CONDUCT

Setting expectations. Our students have an Induction session called Stronger Together, in which the diverse nature of the School and expected standards of behaviour are discussed. This session also tells students how to report misconduct if they witness or experience it. EDI activities are worked into their degree, for example in first year tutorials and the third year Communication Skills module. Postgraduate demonstrators also receive training which discusses bias and EDI issues.

We plan to include a discussion of expectations, the University Code of Conduct, and unconscious bias training into inductions for new staff members in the school (Action 6.2). As discussed under Principle 3, we also plan to increase the uptake of exit interviews to ensure we are aware of any issues in the School.

When EDI topics are discussed, for example in our Colloquia, we remind members of the school to be thoughtful and kind in their comments and questions and those discussions are always actively chaired. The PGWiP conference had a Code of Conduct,[4] advertised to everyone at the start of the day, to ensure that everyone was able to enjoy the conference and felt able to contribute.

Reporting of misconduct. Students and staff are made aware of the University's Report+Support website, on which incidents can be reported anonymously, or contact details can be provided in order to access support,
https://reportandsupport.nottingham.ac.uk/
as well as the School's own anonymous reporting form,
https://www.nottingham.ac.uk/physics/equality-diversity-and-inclusion/contacts-and-enquiries.aspx

Issues raised through Report+Support are directed to the appropriate senior member of staff in the School and those through the School's reporting form to the DEDI.

Colloquium. In May 2021 our EDI Colloquium was given by Dr Emma Chapman on "*Tackling Harassment and Sexism in Academia*". This talk was informed by her work as part of The 1752 Group, who have been campaigning on this issue at the sector level. Since she was invited to give this talk, Emma has joined the School as a Senior Royal Society Fellow.

Dignity advisors. The University has a network of Dignity Advisors available to provide impartial and confidential advice to staff and students regarding harassment, bullying or victimisation. They help to facilitate and support resolution within the framework of the Dignity at Nottingham policy.[5] Members of the School are directed to an Advisor from another school to ensure impartiality.

[4] https://pgwipnotts.github.io/code_of_conduct
[5] https://www.nottingham.ac.uk/hr/guidesandsupport/complaintsgrievanceanddignity/dignity/documents/dignity-at-nottingham-policy-01-2022.pdf

APPENDIX A. LIST OF ABBREVIATIONS

ADC	Appraisal and Development Conversation
APM	Administrative, Professional and Managerial Staff
BAME	Black and Minority Ethnic
Co-I	Co-Investigator
DEDI	Director of Equality, Diversity and Inclusion
EDI	Equality Diversity and Inclusion
EPSRC	Engineering and Physical Sciences Research Council
ESE	Education and Student Experience
F	Female
FoS	Faculty of Science
HESA	Higher Education Statistics Agency
HND	Higher National Diploma
HoS	Head of School
LGBT+	Lesbian, Gay, Bisexual, Transgender and related communities
M	Male
MRC	Medical Research Council
PDRA	Post-doctoral Research Associate
PGT	Postgraduate Taught student
PGR	Postgraduate Research student
PGWiP	Postgraduate Women in Physics Conference
PVC	Pro-Vice-Chancellor
R	Research staff
R&T	Research and Teaching staff
SAT	Self-Assessment Team
SMM	Social Media Manager
SOG	School Operations Group
STEMM	Science, Technology, Engineering, Mathematica and Medicine
STFC	Science and Technology Facilities Council
T	Teaching staff
TS	Technical Services staff
UG	Undergraduate
UoN	University of Nottingham

APPENDIX B. DESCRIPTION OF THE DEPARTMENT

The main staff groups are: Administrative Professional and Managerial (APM), Academic Staff who may be on Research and/or Teaching (R, T, and R&T) contracts, and Technical Services (TS). R staff at Level 4 largely comprise postdoctoral researchers on fixed term contracts. Our student body is largely composed of Undergraduate (UG) and Postgraduate Research / PhD students (PGR). We have a small but growing population of Taught Postgraduate students (PGT) studying for an MSc in Machine Learning in Science, a new course introduced in 2019 as well as students studying for an MSc in Gravity, Particles and Fields, which we run jointly with the School of Mathematical Sciences.

The main population groups in the School, subdivided by gender, are shown in Table 3. The percentage of female staff in the School has slightly increased over the period of this award. Staff were 24% female in 2016 and 27% female in 2022. While 18% of staff are aged over 55, only 9% of female staff are in this age range, suggesting that a rebalancing of the gender profile of the School may occur in the medium term as older staff retire. Technical staff in the School are overwhelmingly (91%) male, a consistent picture across all levels, and the majority of APM staff are female. Table 4 shows population groups in the School compared to the national average for Physics departments.

Research activity in the School is structured into six groups: Astronomy, Cold Atoms and Quantum Optics, Condensed Matter Theory, Experimental Condensed Matter and Nanoscience, Particle Cosmology, and the Sir Peter Mansfield Imaging Centre.

Tables 5 – 12 give details of our undergraduate and postgraduate populations, and success rates by gender for prospective student's applications to our degree programmes.

Cohort	**Number**	**%F**	**%M**
Technical	22	9	91
Teaching	4	25	75
R&T	55	18	82
R (Level 4/PDRA)	77 (56)	33 (32)	67 (68)
APM	13	69	31
PGR	112	26	74
PGT	61	20	80
UG	907	31	69

Table 3. Population groups in the School, giving total number of staff in each group, and percentage Female (F) and Male (M). All staff numbers correct for 2022. Student numbers as of 1 December 2022.

Cohort	% F in 2022/23	% F in UK Physics departments (HESA benchmark) 2020/21
Academic Staff (R,T,R&T)	26	21
Non-Academic Staff (APM,TS)	31	29
PGR	26	29
UG	31	26

Table 4. Comparison of the percentage of women in our School with the average across all Physics departments in the UK. Our staff numbers are as in Table 1. National numbers are from the HESA 2020/21 dataset.

	Full-time		**Part-time**	
	Female	**Male**	**Female**	**Male**
2017/18	218	680	3	5
2018/19	242	627	5	7
2019/20	252	606	2	4
2020/21	268	648	3	1
2021/22	280	616	5	6

Table 5. Numbers of male and female undergraduate students studying full-time and part-time.

	Applications			**Offers**			**Firms**		
	Total	**%F**	**%M**	**Total**	**%F**	**%M**	**Total**	**%F**	**%M**
2019/20	1101	27	73	819	26	74	209	24	76
2020/21	1236	25	75	964	25	75	205	20	80
2021/22	801	31	69	732	31	69	149	28	72
2022/23	670	32	68	585	32	68	146	34	66

Table 6. Undergraduate applications. Numbers, and percentage female and male, for applications, offers and firms (data on 28 August each year).

	Total no. students		1		2:1		2:2		3	
	F	**M**	**F%**	**M%**	**F%**	**M%**	**F%**	**M%**	**F%**	**M%**
2017/18	8	40	50	28	13	28	38	28	0	18
2018/19	12	50	33	42	58	18	8	34	0	6
2019/20	12	59	67	41	17	39	17	19	0	2
2020/21	21	44	67	43	29	36	5	16	0	5
2021/22	19	45	63	36	11	33	26	27	0	4

Table 7. BSc degree outcomes. F% and M% indicates respectively the percentage of female and male students who achieved each degree classification.

	Total no. students		1		2:1		2:2	
	F	**M**	**F%**	**M%**	**F%**	**M%**	**F%**	**M%**
2017/18	15	102	93	66	7	30	0	4
2018/19	19	90	79	58	21	39	0	3
2019/20	21	74	76	55	19	41	5	3
2020/21	16	60	81	73	19	25	0	2
2021/22	19	83	89	57	11	40	0	4

Table 8. MSci degree outcomes. F% and M% indicates respectively the percentage of female and male students who achieved each degree classification. Note that students with low marks are not allowed to continue on to the fourth year of the MSci degree programme and instead graduate with a BSc.

	Full-time		Part-time	
	Female	**Male**	**Female**	**Male**
2017/18	5	18	0	0
2018/19	2	10	0	0
2019/20	2	20	1	1
2020/21	4	33	1	1
2021/22	7	38	0	0

Table 9. Numbers of male and female taught postgraduate students studying full-time and part-time.

	Applications			Offers			Acceptances		
	Total	**%F**	**%M**	**Total**	**%F**	**%M**	**Total**	**%F**	**%M**
2019/20	40	23	78	23	13	87	13	8	92
2020/21	68	19	81	38	18	82	27	19	81
2021/22	72	18	82	44	18	82	31	19	81
2022/23	75	17	83	54	19	81	35	20	80

Table 10. Applications for taught postgraduate courses. Numbers, and percentage female and male, for applications, offers and acceptances (data on 28 August each year).

	Full-time		Part-time	
	Female	**Male**	**Female**	**Male**
2017/18	38	79	0	0
2018/19	35	85	0	1
2019/20	29	78	0	0
2020/21	33	87	0	1
2021/22	28	82	1	1

Table 11. Numbers of male and female postgraduate research (PhD) students studying full-time and part-time.

	Applications			Offers			Acceptances		
	Total	**%F**	**%M**	**Total**	**%F**	**%M**	**Total**	**%F**	**%M**
2019/20	146	36	64	39	31	69	28	39	61
2020/21	136	22	78	30	30	70	20	25	75
2021/22	133	23	77	30	20	80	22	23	77
2022/23	128	34	66	20	35	65	20	35	65

Table 12. Applications for postgraduate research (PhD) courses. Numbers, and percentage female and male, for applications, offers and acceptances (data on 28 August each year).

APPENDIX C. MEMBERSHIP OF EDI COMMITTEE AND SAT

EDI committee:
Aleyna Adamson (UG Representative),
Andrew Rushforth (Director of EDI),
Alfonso Aragón-Salamanca (Special Tutor for LGBT+ Students),
Anthony Kent (Deputy Head of School),
Clare Burrage (former Director of EDI),
Denise Watt (Laboratory Technician),
Emma Chapman (Outreach Coordinator),
Frazer Pearce (Senior Tutor),
Henry Bowler (EDI Committee Administrator),
Jade White (PGR Representative),
Keith Benedict (Deputy Head of School, Director of Teaching),
Kimberley Grant (Education and Student Experience Manager),
Mark Fromhold (Head of School),
Meghan Gray (Admissions Tutor),
Michael Smith (Disability Liaison Officer),
Michael Swift (School Data Officer),
Michael Weir (Social Media Manager),
Mohamed Henini (Special Tutor for Overseas Students),
Moustafa Gharamti (Special Tutor for BAME Students),
Shaun Beebe (Head of Operations),
Wendy Brennan (Operations Manager).

SAT:
Andrew Rushforth (Director of EDI),
Anthony Kent (Deputy Head of School),
Clare Burrage (former Director of EDI),
Lom Machin (UG Representative),
Michael Swift (School Data Officer),
Moustafa Gharamti (Special Tutor for BAME Students),
Nicholas Botterill (Senior Technical Manager),
Peter Milligan (Senior Operations Manager Health & Safety),
Wendy Brennan (Operations Manager).