Department Application
Bronze and Silver Award

ATHENA SWAN BRONZE DEPARTMENT AWARDS

Recognise that in addition to institution-wide policies, the department is working to promote gender equality and to identify and address challenges particular to the department and discipline.

ATHENA SWAN SILVER DEPARTMENT AWARDS

In addition to the future planning required for Bronze department recognition, Silver department awards recognise that the department has taken action in response to previously identified challenges and can demonstrate the impact of the actions implemented.

Note: Not all institutions use the term 'department'. There are many equivalent academic groupings with different names, sizes and compositions. The definition of a 'department' can be found in the Athena SWAN awards handbook.

COMPLETING THE FORM

DO NOT ATTEMPT TO COMPLETE THIS APPLICATION FORM WITHOUT READING THE ATHENA SWAN AWARDS HANDBOOK.

This form should be used for applications for Bronze and Silver department awards.

You should complete each section of the application applicable to the award level you are applying for.

> Additional areas for Silver applications are highlighted throughout the form: 5.2, 5.4, 5.5(iv)

If you need to insert a landscape page in your application, please copy and paste the template page at the end of the document, as per the instructions on that page. Please do not insert any section breaks as to do so will disrupt the page numbers.

WORD COUNT

The overall word limit for applications are shown in the following table.

There are no specific word limits for the individual sections and you may distribute words over each of the sections as appropriate. At the end of every section, please state how many words you have used in that section.

We have provided the following recommendations as a guide.

Department application	Silver	This Application
Word limit	**12,000**	**11,909**
Recommended word count		
1.Letter of endorsement	500	511
2.Description of the department	500	430
3. Self-assessment process	1,000	971
4. Picture of the department	2,000	2,193
5. Supporting and advancing women's careers	6,500	6,546
6. Case studies	1,000	991
7. Further information	500	267
Section on Covid-19	500	246

Name of institution	Queen's University Belfast
Department	School of Mathematics and Physics
Focus of department	**STEMM**
Date of application	April/May 2020
Award Level	**Silver**
Institution Athena SWAN award	**Date:** April 2019 **Level:** Silver
Contact for application Must be based in the department	
Email	
Telephone	
Departmental website	www.qub.ac.uk/schools/SchoolofMathematicsandPhysics

Table of abbreviations

Abbreviation	Definition
'the School'	The School of Mathematics and Physics, Queen's University Belfast
ADE	Associate Director of Education
AP	Action Plan
AOS	Advisor of Studies
AS	Athena SWAN
CDT	Centre for Doctoral Training
DE	Director of Education
DR	Director of Research
EPS	(Faculty of) Engineering and Physical Sciences
HOS	Head of School
GE	Gender Equality
GEC	Gender Equality Committee
IOP	Institute of Physics
NI	Northern Ireland
P&C	People and Culture (Human Resources)
PDR	Personal Development Review
PDRA	Post-doctoral research assistant
PGR	Postgraduate research student
PGT	Postgraduate taught student
PSS	Professional and Support Staff
PT	Personal Tutor
QGI	Queen's Gender Initiative
QUB	Queen's University Belfast
SAT	Self-Assessment Team
SENSE	Support for Equality Network in Science and Engineering
SL	Senior Lecturer
SMB	School Management Board
SSCC	Students-Staff Consultative Committee
UB	Unconscious Bias
UG	Undergraduate student
WAM	Work Allocation Model
WG	Working Group

Research Clusters within the School

Abbreviation	Name
ARC	Astrophysics Research Centre
ASC	Atomistic Simulation Centre
CNM	Centre for Nanostructured Media
CPP	Centre for Plasma Physics
CTAMOP	Centre for Theoretical Atomic, Molecular and Optical Physics
MSRC	Mathematical Sciences Research Centre

Actions in the text are indicated by a side icon like this: ⫸ **A2.1** which links to the corresponding item in the Action Plan (**AP**). The icons are followed by *Action Boxes* containing the actions planned from the Action Plan.

This icon indicates **impact** from the previous Action Plan.

The following table summarises grades and roles for Academic and Research Staff:

Academic Staff		Academic	Research
Grades	AC1	N/A	Research Associate
	AC2	Lecturer	Research Fellow
	AC3	Lecturer	Senior Research Fellow
	AC4	Senior Lecturer (SL), Reader	N/A
	Professor	Professor	N/A

1. LETTER OF ENDORSEMENT FROM THE HEAD OF DEPARTMENT

Recommended word count: 500 words

An accompanying letter of endorsement from the head of department should be included. If the head of department is soon to be succeeded, or has recently taken up the post, applicants should include an additional short statement from the incoming head.

Note: Please insert the endorsement letter **immediately after** this cover page.

School of Mathematics and Physics

Queen's University of Belfast
Belfast
BT7 1NN
United Kingdom
www.qub.ac.uk/mp
hos.mp@qub.ac.uk

26 October 2020

Dear Panel,

I am delighted to provide my full support to this application for an Athena SWAN Silver Award from the School of Mathematics and Physics at Queen's University Belfast.

When I became Head of School in 2015, we prioritised the SWAN agenda, resourcing it and co-opting the Swan Champion to the Management Board, to fully embed the ethos and actions into our culture. Importantly, I saw the Action Plan as a live document responding to gender equality issues as they arose. This is best illustrated by our Beacon activity (below).

Sharing best practice and demonstrating leadership in equality (both within and external to Queen's) has been a priority since our first award in 2013, for example one of the SAT Co-chairs (the Juno Champion) is a member of the Faculty equality network (SENSE) and is involved in an EPSRC grant on inclusivity (£430k), as well as part of the All-Ireland Juno Network.

In 2016-19, our work on unconscious bias was significant, compulsory training for all staff and awareness sessions for students' inductions are now fully embedded; the latter is also extended to all laboratory and tutorial demonstrators. In the future, we will move from awareness to training for all students. Importantly, we are making 'Safe Harbours' our Beacon activity, arising from response to needs of postgraduate researchers regarding professional (mis)conduct.

Our previous Action Plan led to great successes in the advancement of women's careers:
- The new MSc in Data Analytics has had a tremendous impact on increasing the number of female PGT students, above the national average.
- The fraction of female PGR students in Physics has grown from 19% to 25%.
- The annual 'PDRA and PhD Career day' assists our researchers with their future careers, as well as creating a supporting environment. As a result, the fraction of female PDRAs is the largest registered since we started taking measures for Athena SWAN. We will work more actively supporting fellowship applications from our PDRAs.

Turning to professional and support staff (PSS), I integrated many of the operations, increasing opportunities for 'Acting Up' and acquiring new skills, and lobbying at University level for career progression. In the future, we will increase training and professional development for PSS, while fully committing to the new University's scheme for PSS career progression.

Finally, I confirm that the information presented in this application, including qualitative and quantitative data, is an accurate and true representation of the School, and that it has been developed in consultation with colleagues across the School.

Yours sincerely

[Word Count Sec. 1: 511/500]

THE QUEEN'S
ANNIVERSARY PRIZES
FOR HIGHER AND FURTHER EDUCATION
2015

Athena
SWAN
Silver Award

2. DESCRIPTION OF THE DEPARTMENT

Recommended word count: Bronze: Silver: 500 words

Please provide a brief description of the department including any relevant contextual information. Present data on the total number of academic staff, professional and support staff and students by gender.

The School of Mathematics and Physics belongs to the Faculty of Engineering and Physical Sciences (EPS). For academic and research purposes, it has six research centres: five of them investigating theoretical (CTAMOP and ASC) and experimental (ARC, CPP and CNM) Physics, and one (MSRC) dedicated to pure and applied mathematics, statistics and operational research. Teaching activities are structured into two units: Mathematics and Physics (Fig.2.1).
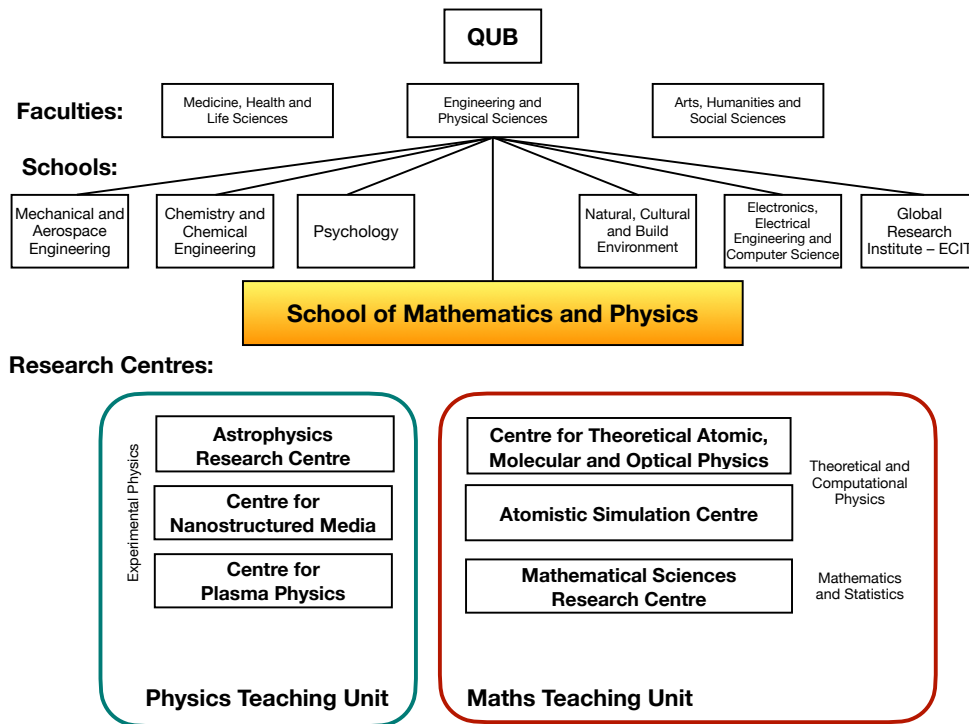

Figure 2.1: Overview of the structure of the School of Mathematics and Physics, with its six research centres. The coloured boxes at the bottom highlight the two teaching units.

The School currently incorporates 68 academic staff, 49 research staff, 30 Professional and Support Staff (PSS), 129 PGR students, 47 PGT students and 705 UG students (Table 2.1). The school is very multi-cultural, particularly academic, research staff and PGRs come from a wide range of nationalities, ages and backgrounds (Fig.2.2). The gender balance of staff and students in the School are detailed in Sections 4 and 5.

Category	M	F	%F
UG	468	237	34%
PGT	24	23	49%
PGR	95	34	26%
Research Staff	39	10	20%
Academic Staff	54	14	21%
PSS	13	17	57%

Table 2.1: Staff and students' current numbers by gender.

Figure 2.2: A picture of 10 of our female academics in the School: one Professor, one Reader, 2 SLs and 7 Lecturers; 6 of them international.

The School is led by the Head of School (HOS) and he is supported by a deputy HOS (a former AS Champion). The School Management Board (SMB), chaired by the HOS, comprises the deputy HOS, Director of Education (DE), School Manager, the AS Champion, Directors of Outreach and Internationalisation and an elected academic representing non-professorial staff. The SMB oversees all aspects of the School's management and strategic priorities.

PSS are organised into support staff for research, teaching, finance, marketing, recruitment and events, IT and lab and technical workshops. All operations are supervised by the School Manager. PSS play a very active role in its governance through a number of committees within the School and at faculty level (Sec.5.2-4).

A review of the number of PSS over the last 5 years (Table 2.2) shows an increase of the percentage and absolute numbers of female staff, especially among clerical staff. The latter increase emerged in response to the needs for the new PGT courses and the EPSRC Centre for Doctoral Training (CDT), held by the School, which has a total of 54 PGRs (12 female and 42 male students).

	Total	M	F	%F
2014/15	29	16	13	45%
2015/16	24	13	11	46%
2016/17	27	13	14	52%
2017/18	25	12	13	52%
2018/19	30	13	17	57%

Table 2.2: Data for PSS split into gender.

Fig.2.3 reports the fraction of female PSS for 2018/19 according to Grade, showing a significant number of women in managerial positions (Grades 7-8).
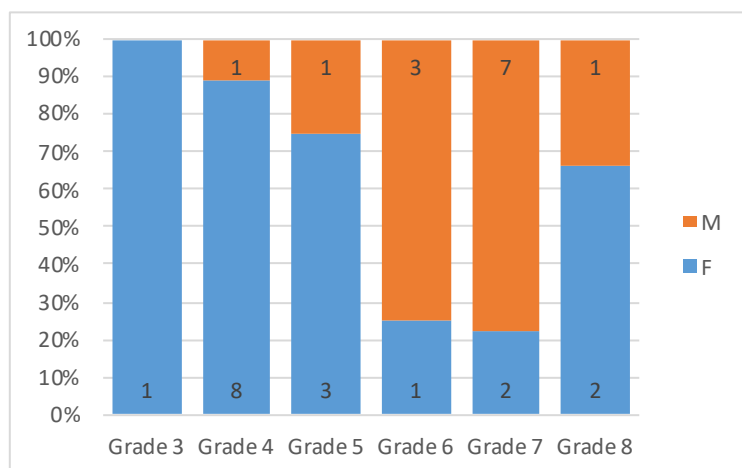
Figure 2.3: Percentages of male and female PSS according to Grade in 2018/19. Absolute numbers are shown inside the bars.

The School offers a variety of UG programmes in Physics, Maths and Statistics (Sec.4.1). In addition, there are two PGT programmes: Materials Science Engineering and Data Analytics.

The School has embedded the Athena SWAN (AS) and the Institute of Physics (IOP) Juno principles in every aspect, from departmental leadership to the education of future physicists and mathematicians. The School has held a Juno Champion award since 2014 and recently (October 2019) the Juno panel commended the School's commitment to GE and its synergy between Juno and AS activities.

 [Word Count Sec. 2: 430/500]

3. THE SELF-ASSESSMENT PROCESS
Recommended word count: Silver: 1000 words

Describe the self-assessment process. This should include:

(i)   a description of the self-assessment team

Our Self-Assessment Team (SAT) includes the HOS, senior and early-career academics, postdoctoral researchers/fellows, technical/clerical staff, PGR, PGT and UG students. Membership is reviewed annually to best reflect every stage of the School's life, while also attaining gender balance (we currently have 57% female representation). Membership of the SAT is recognised for academics in the WAM: *ex officio* members, the AS Champion, unconscious bias (UB) lead and IOP Champion, are allocated days in the WAM as part of their main role; the allocation of other academic members is included in their general allocation quota. PDRAs and students' representatives are either elected or appointed on a voluntary basis. Similar to other major leadership roles, the positions of AS and Juno Champions are advertised in the School and the appointment is made by a panel. A summary of the current team can be found in Table 3.1 and Fig.3.1, respectively.
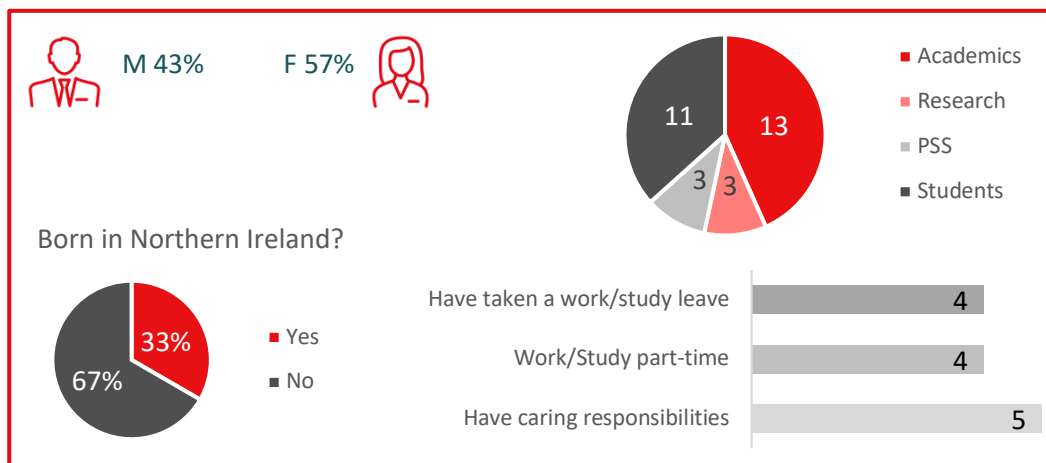

Figure 3.1: Information on SAT members.

Table 3.1: SAT Membership.

[Word Count 147]

(ii)   an account of the self-assessment process

The SAT is structured into two working groups (WGs), the Staff WG and the Student WG, Fig.3.2. The number of WGs decreased from three (in 2016) to two (in 2018) to avoid duplication on issues common to all students and/or to all staff.

The WGs meet quarterly, with additional meetings as required, to discuss the School's survey, items from the **AP** (items are added, updated or deleted as necessary), organise events and discuss special issues. The full SAT meets three times a year to discuss and take action on high-priority issues, review the **AP**, and organise major events such as 'International Women's Days' and 'PDRA-PhD Career Day'. All members of the SAT contribute to the preparation of the application for renewal of the AS awards. The Co-Chairs present a draft of the application to an AS Champion from another School acting as a critical friend, the SMB and the Institutional SAT which provide feedback.

SAT

Students WG, chaired by a Juno Champion
UG and PG reps
ADEs, Recruitment & Outreach Chair,
PG Director, PG Advisor (Maths),
Juno Champions.

Staff WG, chaired by the SWAN Champion
PDRA reps, HOS, Deputy-HOS,
School Manager, ADEs,
Non-Professorial Rep. at SMB,
Technical & Clerical reps, Juno Champions.

SAT Co-Chairs

School Board
(annual general assembly)

UK and All-Ireland
Juno Networks

School Education
Committee

EPS Faculty
SENSE Network

School Management
Board
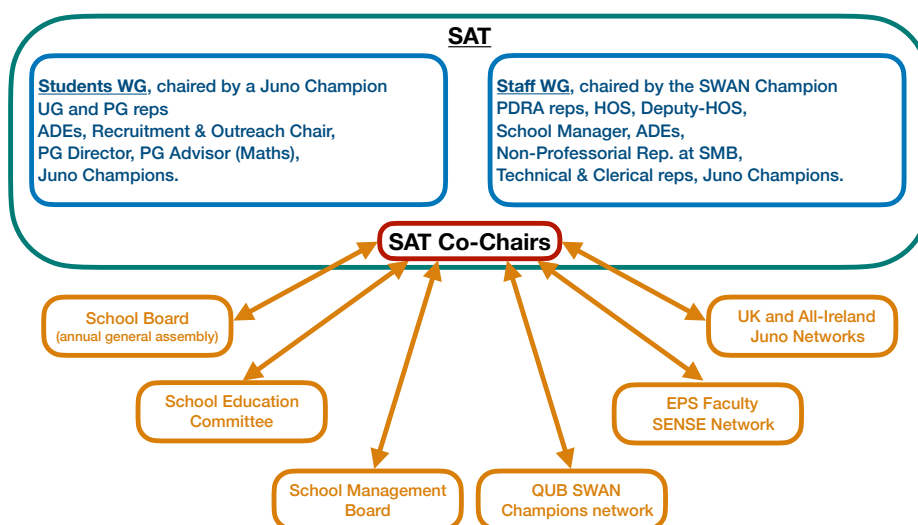
QUB SWAN
Champions network

Fig.3.2 The structure of the Self-Assessment Team with the WGs. The orange boxes indicate the links that the SAT Co-Chairs have to external committees.

Examples of successful actions implemented by the SAT, from the previous **AP**:
- We have introduced the new PGT in Data Analytics which increased significantly the number of female PGTs (Sec.4.1(iii)).
- The Personal Tutor (PT) policy: no less than 2 students of any gender are assigned to any mixed gender tutorial group. Furthermore, a student can request a PT of their own gender.

IMPACT

- A GE recruitment advertisement policy: all job advertisements include a section emphasising the School's commitment to GE by mentioning the AS Silver award and a welcoming statement for female applicants.

AS is fully embedded in the School's structure and planning, a SAT Co-Chair is a member of the SMB (where they report bimonthly) and the School Education Committee for monitoring and discussing issues in relation to GE (Fig.3.2). They also report biannually at the School Board (general assembly). The School's support to SAT includes the allocation of an annual budget, reviewed every year, maintained at £5k for the last 4 years despite recent cuts in the School's budget.

A fundamental component of the SAT process is the School's Culture Survey which is rolled out annually around spring. There are four, specifically designed, anonymous categories: (i) PhD students, (ii) PDRAs, (iii) Academic Staff and (iv) PSS. The surveys probe issues on awareness of GE, workload, career progression, training, culture and environment, and professional conduct. A report with the results and recommended actions is discussed with both the SAT and the SMB, and then released for all members of the School.

The SAT regularly communicates with all members and specific groups of the School by sending emails with opportunities and other news. Moreover, the School's GE initiative has a dedicated and regularly updated website (Fig.3.3).

Figure 3.3: A screen shot of the School Gender Equality website.

An important role of the SAT is to support and organise events related to GE, wellbeing and in relation to the **AP**, e.g.:
- Annual 'Ada Lovelace day';
- Annual 'Girls in Maths' event;
- Annual 'International Women's Day' and 'International Men's Day';
- Mental Health Awareness training.

At University level, the SAT Co-chairs are members of the QUB SWAN Champions network, which meets every 6 weeks and whose membership includes all the University's AS Champions and the Director of the Queen's Gender Initiative (QGI). This network provides a forum to discuss common issues affecting several Schools, with the aim of reporting these directly to the University executive committees. For example, the need for formal UB training for staff was highlighted through this network and, as a result, an online compulsory training for all staff was established in 2018 (Sec. 5.1(ii)).

The UB Lead is a SAT member responsible for all inductions and trainings on UB as detailed in the **AP**.

The IOP Juno initiative is fully embedded into the School and SAT, with a Juno Champion and Co-Champion, one of them being a SAT Co-Chair. They ensure that the Juno principles are fully embedded within the School. Activities driven by Juno include:
- Membership of the EPS Faculty AS Champions network SENSE (Support for Equality Network in Science and Engineering), which meets quarterly and promotes sharing common practices, as well as organising larger scale events. It is through SENSE that an 'Inclusion Matters' EPSRC grant was put together and

awarded, 2018 (£430K), Fig.3.4. The Juno Champion was responsible for the initial coordination between the EPS AS Champions and 4% of her time is allocated to the grant.

- An all-Ireland Juno Network (2017): The aim of this network is to share best practices among the Physics departments and to support each other during the application process, acting as critical friends. Fig.3.5 shows an example of this network's joint work.

Figure 3.4: Some of the activities of the 'Inclusion Matters' EPSRC grant involve a virtual reality investigation of the perception of online classes delivered in this way. Left: a participant in the study. Right: participants are asked to look in a virtual mirror at their 'avatar', whose gender may differ from the participant's one.

Figure 3.5: The poster 'How successful are women in Physics in Ireland?' co-authored by several Juno Champions from all-Ireland, including two members of our SAT. This poster was presented at the International Conference on Women in Physics (2017, Birmingham, UK). Copies of the poster have been hung in public areas in the School.

[Word count 753]

(iii) plans for the future of the self-assessment team

The SAT will continue to have ownership of AS and Juno actions. In addition, the following is planned:

- From September 2020 the SAT will change its name to the 'Gender Equality Committee' (GEC) to better evidence its mission to all the members of the School.

- A leadership position of SAT Data Analyst will be created within the GEC.

- A 3-year succession plan for the Chairs.

- Increase PSS representation in the SAT.

[Word count 71]

[Word Count Sec. 3: 971/1000]

4.   A PICTURE OF THE DEPARTMENT
Recommended word count: Silver: 2000 words

4.1.   Student data
If courses in the categories below do not exist, please enter n/a.

(i)   Numbers of men and women on access or foundation courses

n/a

(ii)   Numbers of undergraduate students by gender

Full- and part-time by programme. Provide data on course applications, offers, and acceptance rates, and degree attainment by gender.

The School offers 13 UG programmes, from traditional Physics and Mathematics pathways to joint programmes such as 'Mathematics with Computer Science'. In 2018/19 there were 705 UG students (34% women). Data for UG applications, offers and acceptance rates are shown in Fig.4.1.1. The majority of the applications are from NI (92% in Maths, 82% in Physics) and changes in the applications/population are heavily linked to changes in the local schools. Numbers of female applications and offers are largely stable. A slight decrease of unclear origin is observed, in 2018/19, in the number of acceptances in Maths. This is also reflected in the number of current students, discussed below. The lower numbers can also be linked to the number of female students taking A-Levels in Maths in NI which in 2018 was at a 5-year low (Fig.4.1.2).

The percentage of female UGs is shown in Fig.4.1.3 and Table 4.1.1. The absolute number of female students in Maths has remained approximately constant, while the proportion has decreased from 45% to 38%, approximately. This is partly due to a significant increase of UG males in the years 2014-16, in line with the national trend. However, the fraction of our female UG students is still above the UK average.

Encouragingly, the fraction of female students in Physics has slowly increased well above the national average. The absolute number has remained approximately constant.
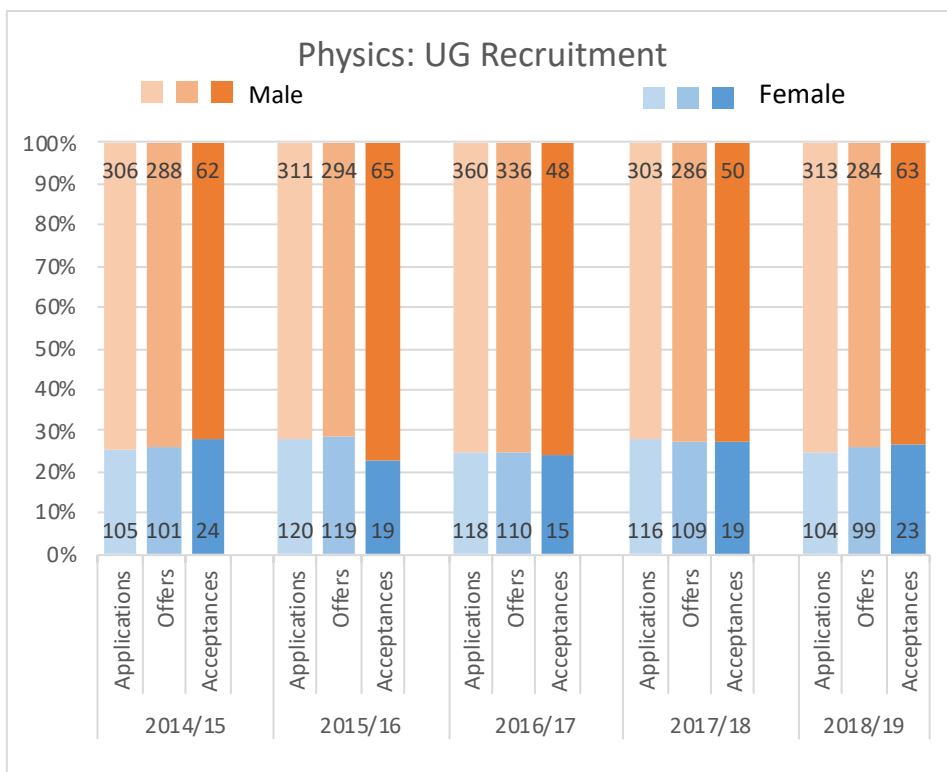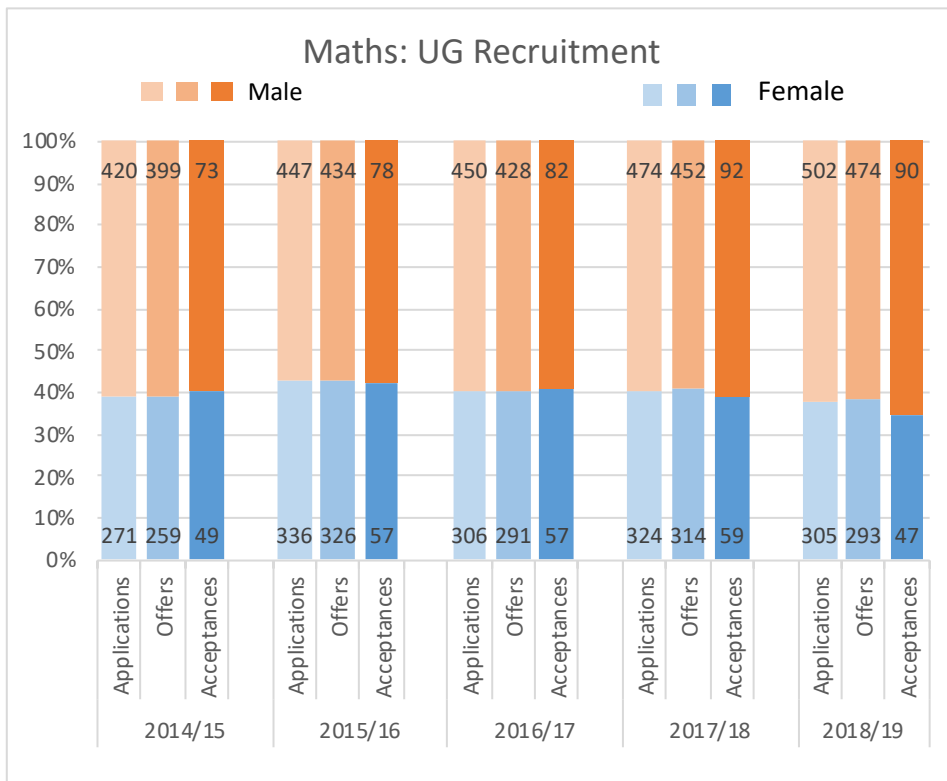
Maths: UG Recruitment

	Male	Female

	2014/15			2015/16			2016/17			2017/18			2018/19		
	Applications	Offers	Acceptances	Applications	Offers	Acceptances	Applications	Offers	Acceptances	Applications	Offers	Acceptances	Applications	Offers	Acceptances
Male	420	399	73	447	434	78	450	428	82	474	452	92	502	474	90
Female	271	259	49	336	326	57	306	291	57	324	314	59	305	293	47

Physics: UG Recruitment

	Male	Female

	2014/15			2015/16			2016/17			2017/18			2018/19		
	Applications	Offers	Acceptances	Applications	Offers	Acceptances	Applications	Offers	Acceptances	Applications	Offers	Acceptances	Applications	Offers	Acceptances
Male	306	288	62	311	294	65	360	336	48	303	286	50	313	284	63
Female	105	101	24	120	119	19	118	110	15	116	109	19	104	99	23

Figure 4.1.1: Percentages of female and male UG applications, offers and acceptances; Maths top panel; Physics bottom panel. Absolute numbers are indicated inside the bars.
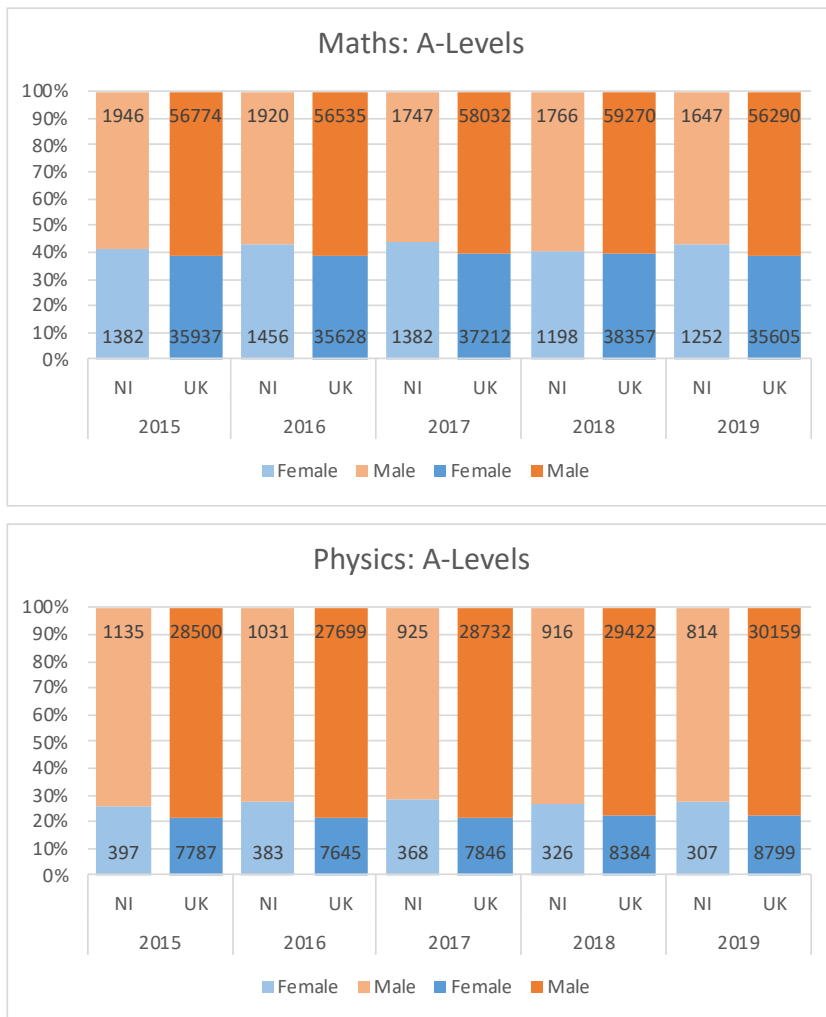
Figure 4.1.2: Statistical analysis of students obtaining A-Levels in UK and Northern Ireland (NI): percentages of females and males are presented. Results of A-Levels in Maths are illustrated in the top panel while Physics A-Levels are in the bottom panel. Absolute numbers are shown inside the bars.
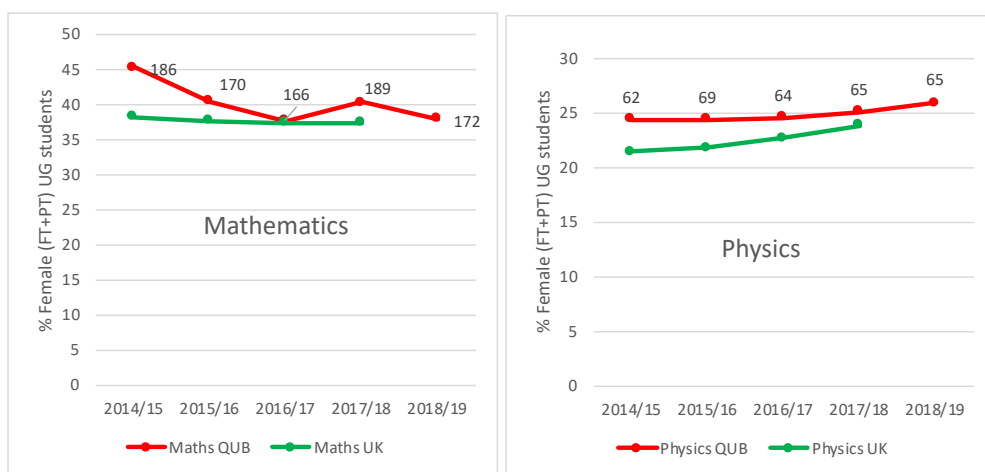

Figure 4.1.3: Percentage of Maths (left) and Physics (right) undergraduates who are female (full-time and part-time). Absolute numbers are indicated above the marker points. Notice the different scales of the two plots. Figures not available for 2018/19.

In 20/21 the School is planning to introduce stricter entry requirements. We will review the impact of these major changes. We will engage Maths schoolgirls (particularly at GCSE level, a crucial time in the leaky pipeline) with outreach events such as 'Girls in Maths' (Fig.4.1.4) aiming at increasing attendance and extending to a similar event for Physics. Additionally, we will address the decrease of female UG students by increasing awareness of AS/GE in UCAS/Open days and by hosting special events for A-Level offer holders, especially schoolgirls, to encourage them to put Maths and Physics at Queen's as their first UCAS choice.

Numbers of undergraduate students by gender							
Academic Year	Subject	Full-time		Part-time		Grand Total	% Female
		Male	Female	Male	Female		
2014/15	Maths	216	179	9	7	411	45%
	Physics	182	59	10	3	254	24%
	Total M&P	398	238	19	10	665	37%
2015/16	Maths	241	163	9	7	420	40%
	Physics	211	68	3	1	283	24%
	Total M&P	452	231	12	8	703	34%
2016/17	Maths	262	165	12	1	440	38%
	Physics	192	63	4	1	260	25%
	Total M&P	454	228	16	2	700	33%
2017/18	Maths	263	180	17	9	469	40%
	Physics	186	64	8	1	259	25%
	Total M&P	449	244	25	10	728	35%
2018/19	Maths	259	168	23	4	454	38%
	Physics	175	64	11	1	251	26%
	Total M&P	434	232	34	5	705	34%

Table 4.1.1. Total number of male and female undergraduate students.

Figure 4.1.4: The 'Girls in Maths' event, May 2nd, 2019. The photos show pupils and 5 members of Staff.

Fig.4.1.5 shows the attainment of UG students. The fraction of students obtaining 1st or 2:1 class has slightly increased since 2016/17 when continuous assessment was introduced. The fraction of women in Maths attaining a 1st or 2:1 is smaller than the male fraction. This is reversed in Physics where in general women perform better than men. The Physics ADE has recently investigated gender differences in student performance from 2014-2018 (A-level entry scores versus the degree mark awarded) and found no evidence of gender bias in awarding Physics degrees. The investigation was praised by the external examiner. We will continue the investigation and extend it to Maths.

"The analysis of performance broken down by gender is very useful, and should be continued, with efforts made to identify underlying causes if any significant differentials are discovered. It would be particularly interesting to relate performance in Year 1 (and beyond) to A-level scores on entry."
(External Examiner for Physics)

IMPACT

⟫ **A1.4**

UG Attainment: Mathematics

	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
3rd+2:2	15	19	13	18	20	5	13	12	11	14
2:1+1st	29	35	28	41	43	24	48	38	38	28
	2014/15		2015/16		2016/17		2017/18		2018/19	

Legend: ■ Male 2:1+1st ■ Male 3rd+2:2 ■ Female 2:1+1st ■ Female 3rd+2:2

UG Attainment: Physics

	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
3rd+2:2	7	2	12	5	7	6	12	3	9	1
2:1+1st	27	9	42	11	36	11	39	18	33	12
	2014/15		2015/16		2016/17		2017/18		2018/19	

Legend: ■ Male 2:1+1st ■ Male 3rd+2:2 ■ Female 2:1+1st ■ Female 3rd+2:2

Figure 4.1.5: Percentage of male and female Maths (top) and Physics (bottom) students obtaining a 3rd or 2:2 class compared to those obtaining a 2:1 or 1st class. Absolute numbers indicated inside the bars.

The School awards approximately 20 prizes per year to the best UG students. In 2018/19, these were assigned equally to males and females. Last year, 'The XXX Scholarships' (Fig.4.1.6) were introduced offering £2,000 prizes for the best female Physics students in each year group.

Figure 4.1.6: XXX died from a rare form of blood cancer at just 17 in 2017. Her family set up three annual £2,000 scholarships for the best female UG students in Physics in each year group.

UG students are supported by lecturers, AOS and PT. Level 1 students meet their PT either in small group tutorials on a weekly basis (6 students) or in 1:1 meetings. Additionally, tutees that have progressed to L2 are invited to meet their PTs once per semester. Our previous **AP** recognised the need to provide a supportive environment for female students during the small group PT meetings. As a result, a School's policy was introduced allowing L1 students to request a PT of a gender of their choice. The uptake of this opportunity, which is advertised during induction, is reviewed yearly, with no uptake so far, and will be extended to AOS.

IMPACT

»» A1.2

In 2018/19, Maths students comprised 276 BSc students and 176 MSci students while in Physics there were 110 BSc and 140 MSci students. Thus, the fraction of students in an MSci programme is much higher in Physics than in Maths, with no evident gender bias compared to the total student population (Table 4.1.1). In line with QUB's vision to increase the number of MSci students, we will run a focus group and a survey with students to investigate the reasons for the low numbers in the MSci programmes.

»» A1.6

Action A1.1	• Include Gender Equality talks at UCAS/Open days in the School.
	• Involve our female UG students to participate alongside our academic staff in schools' visits and regional career fairs promoting Maths and Physics at QUB.
	• Organise presentations which include Gender Equality activities in the School, alongside the Faculty spring event for A-Level undecided offer-holder applicants, to encourage them to put Maths and Physics at Queen's as their first UCAS choice.
	• Revise UCAS applications, offers and acceptance rates.
	• Organise outreach and recruitment events for schoolgirls in our School: increase attendance at our annual 'Girls in Maths' event; introduce new 'Girls in Physics' event.
Action A1.2	• Extend the PT policy to AOS, allowing students to request an AOS of a gender of their choice.

Action A1.4	• Extend to Maths the investigation on the attainment of UG students already completed in Physics, identifying emerging GE issues and designing actions in response.
Action A1.5	• Assess the impact that the stricter entry requirements have by comparing applications, offers and acceptance rates to previous years.
	• Analyse the students' attainment as measured by average marks and passing and retention rates, final degree classifications and compare to previous cohorts.
Action A1.6	• Hold yearly focus groups and surveys with Maths and Physics UG students to investigate strategies to attract more students, especially female students, into the MSci programmes.
	• Reinforce advertisement of Maths MSci programmes in the School's website and during UCAS days.
	• Hold yearly meetings where AOS encourage eligible second year students to change pathway to MSci.

[Word Count 732]

(iii)   Numbers of men and women on postgraduate taught degrees

Full- and part-time. Provide data on course application, offers and acceptance rates and degree completion rates by gender.

There are two PGT programmes: 'Materials Science Engineering' and 'Data Analytics', introduced in 2014 and 2017, respectively. In our previous application we noted that the only PGT course offered by the School (Materials Science Engineering) was highly specialised and mainly targeted a small part of the industry sector and detected that this course has a gender-balance skewed towards men. Thus, to increase the proportion of female PGTs, a previous action involved the introduction of the Data Analytics course (Fig.4.1.7).

Figure 4.1.7: PGT in Data Analytics: Frames extracted from the presentation video of the course available in our School's website.

The tremendous **impact** of this action can be seen in Table 4.1.2. The total number of students almost quadrupled from 2014/15 to 2018/19 (12 to 47) meeting one of the University's priority objectives. In the last two years, the percentage of full-time female PGT students has increased from 33% to 45% (44% to 56% for part-time ones). This is in excess of the national average of 36% for PGT courses in Maths and Physics in 2017/18.

PGT	Full-Time			Part-Time			Total
Year	M	F	%F	M	F	%F	
2014/15	0	1	100%	10	1	9%	12
2015/16	1	1	50%	13	1	7%	16
2016/17	6	0	0%	11	0	0%	17
2017/18	14	7	33%	9	7	44%	37
2018/19	17	14	45%	7	9	56%	47

Table 4.1.2 Numbers of male and female PGT students.

Data for PGT applications, offers and acceptance rates are shown in Fig.4.1.8. As mentioned before, we have observed a significant increase of applications, particularly in the female fraction. Encouragingly, in the last year, the female acceptance rates are higher than the corresponding offers percentage. This has been a great success, partly due to the new PGT course.

"I found the modules much better in comparison to any other Universities."
"The Teachers are very helpful."

A recent PGT female student appearing in the video described in Fig.4.1.7
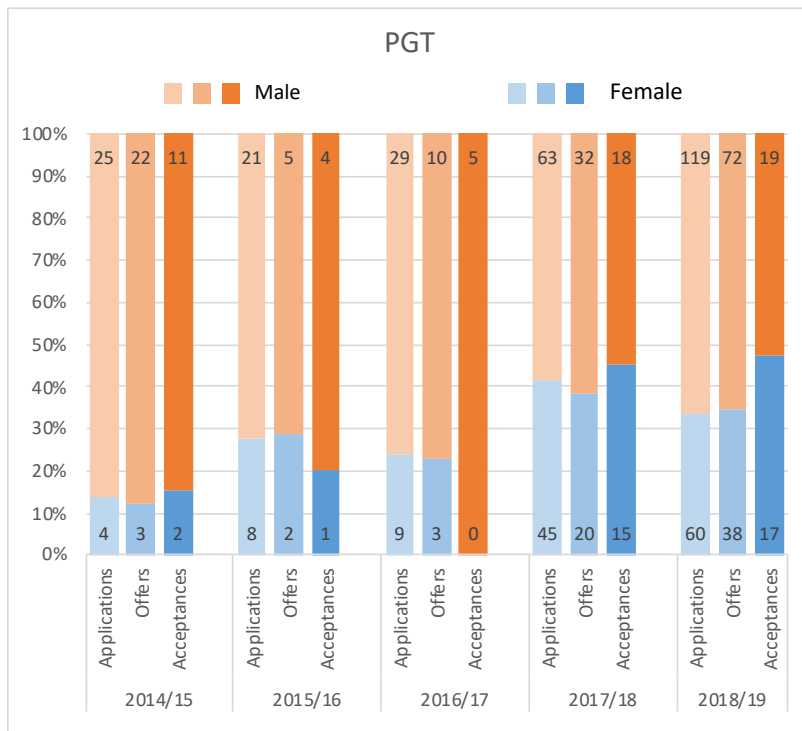
Figure 4.1.8: Percentages of female and male PGT applications, offers and acceptances. Absolute numbers are indicated inside the bars.

The uptake of both PGT courses will be reviewed for all genders and we will encourage UG students to apply through discussions with their PTs and AOS. Table 4.1.3 shows that completion rates for both genders are gradually increasing with no dropouts or

withdrawals. We will closely review the performance of all students identifying cases at risk of dropping out of the course.

PGT Completion				
Year	M	F	%F	Total
2014/15	3	1	25%	4
2015/16	1	2	67%	3
2016/17	5	1	17%	6
2017/18	8	0	0%	8
2018/19	19	7	27%	26

Table 4.1.3 Completion rates of PGT courses by gender.

Action A1.7	• Review the uptake and future dropout rates of PGT courses for all genders. PT and AOS to encourage UG students, especially female ones, to consider applying for PGT courses.
	• Review the marketing material (brochures, leaflets, website) to showcase recent female graduates.
	• Advertise opportunities to enrol as a part-time PGT student.

[Word Count 310]

(iv)   Numbers of men and women on postgraduate research degrees

Full- and part-time. Provide data on course application, offers, acceptance and degree completion rates by gender.

The number of PGR students in the School is analysed in Fig.4.1.9 and Table 4.1.4. The majority of PGR students are in Physics while Maths PGR students represent less than 10% of the population. Because of a drop in female PGR recruitment and as part of our previous **AP**, we ensured gender neutrality of recruitment by reviewing the advertisement text of PhD positions, by requiring UB training for all recruiters and we increased the visibility of female role models. The **impact** of this action has been the growth of the percentage of female students in Physics from 19% to 25% in the last 5 years, getting closer to the 2017/18 national average of 26%. The fraction of female students in Maths is much higher but it is difficult to extract a trend due to the small numbers.

The overall number of part-time students is very small (Table 4.1.4), none of them female recently. We will advertise more effectively the opportunity to register as part-time, emphasising the School's work-life balance policies, and SAT driven activities supporting female students.
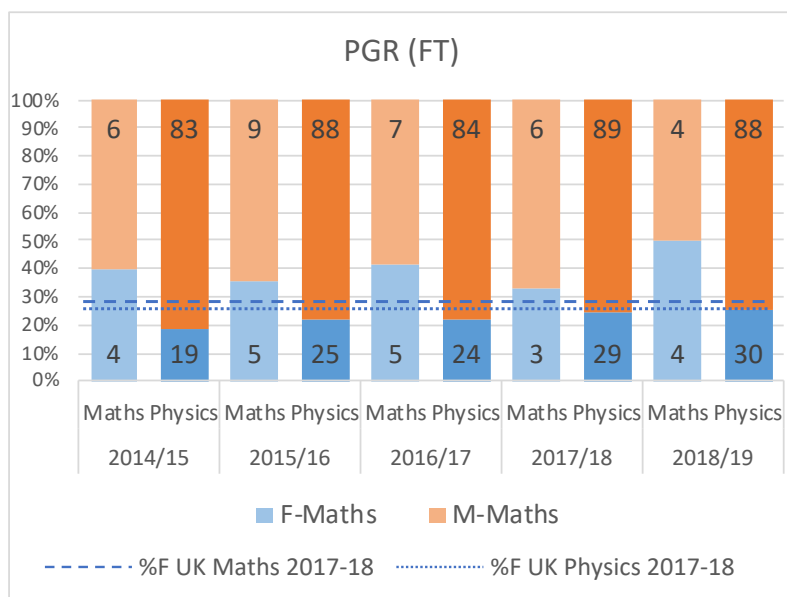
PGR (FT)

Figure 4.1.9: Percentage of full-time female PGR students across both Maths & Physics. Absolute numbers indicated inside the bars. The horizontal dashed line indicates the national average for Maths (29%) while the horizontal dotted line indicates the corresponding national average for Physics (26%).

Year	2014/15			2015/16			2016/17			2017/18			2018/19		
Subject	M	F	%F	M	F	%F	M	F	%F	M	F	%F	M	F	%F
Maths	0	0	0%	1	0	0%	2	0	0	1	0	0%	1	0	0%
Physics	5	0	0%	4	1	20%	6	2	25%	3	0	0%	2	0	0%
M&P	5	0	0%	5	2	17%	8	2	20%	4	0	0%	3	0	0%

Table 4.1.4 Number of part-time PGR students and fraction of females.

PGR
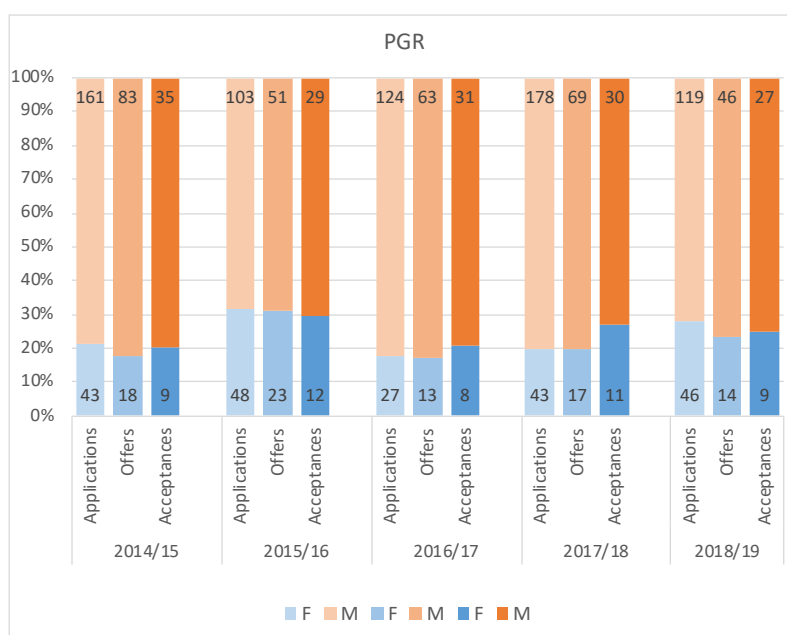
Figure 4.1.10: Fraction of female PGR (full-time and part-time) applications, offers and acceptances.

Fig.4.1.10 shows the data for PGR applications, offers and acceptance rates. After a minimum in 2016/17, the fraction of female applicants has increased steadily with small fluctuations, thanks to the **impact** of our previous actions. There is no clear change of fraction in the recruitment process from application to acceptance.
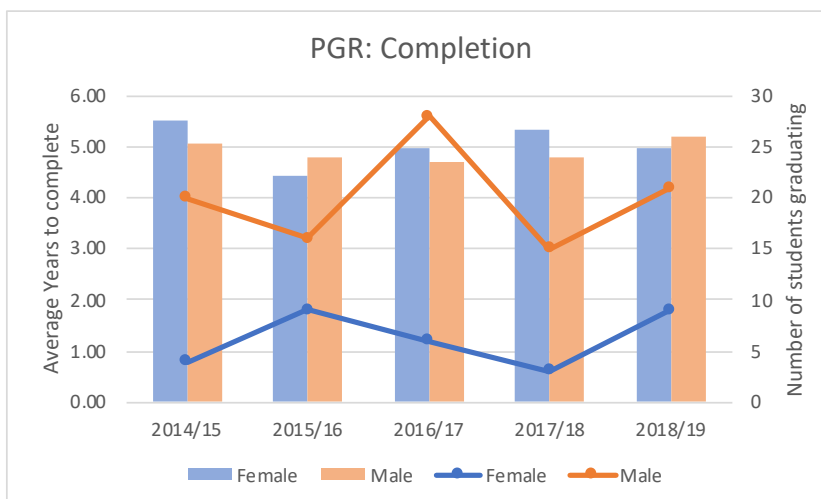
Figure 4.1.11: PGR Completion rates: bars indicate the average number of years to complete the PGR course from enrolment to graduation (axis on the left). Lines and markers indicate the number of students graduating in each academic year.

Fig.4.1.11 shows the completion rate of all PGRs in the School, indicating that the majority of students need between 4 and 5 years to complete their degree (from enrolment to graduation) without a clear gender bias. Different funding sources provide scholarships between 3 and 4 years, explaining long completion times. In 2014-18, an average of 4 female and 8 male students per year took a temporary withdrawal. These represent the few cases that took more than 4 years. The number of female PhD external examiners and their contributions as role models is discussed in Sec.5.6(vii).

Action A2.2	• Highlight opportunities for PGR students to enrol part-time in the relevant adverts and pages of the School's website and increase awareness of work-life balance policies.
	• Advertise SAT driven activities supporting female PGR students (see A2.1-A2.6).

[Word Count 322]

(v)   Progression pipeline between undergraduate and postgraduate student levels

Identify and comment on any issues in the pipeline between undergraduate and postgraduate degrees.

The data of the previous sections show that
- The fraction of female UG students has remained constant.
- There is no significant gender bias in the degree classification, Fig.4.1.5.

Therefore, there does not seem to exist any barrier for our female UG students to progress into postgraduate studies. Even though the number of female PGR has steadily increased, the fraction of PGR female students is significantly lower than the fraction of female UG students indicating a possible leaky pipeline which we will address in the **AP**, Fig.4.1.12.
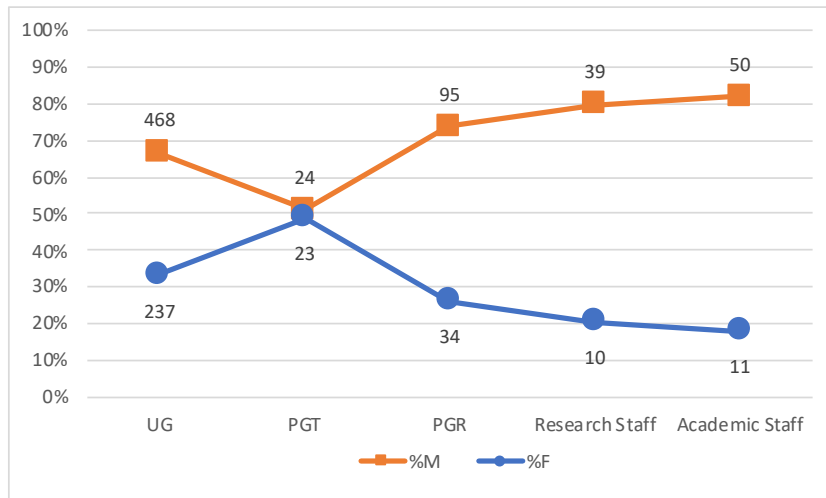
Figure 4.1.12: Percentages of females and males for UG, PGT and PGR students, research and academic staff in 2018/19. Absolute numbers are shown for the corresponding marker.

On the other hand, the fraction of female PGT students are higher than that of UG female students indicating a preference for a distinct career pathway that is more focused on industry than academia. We will introduce opportunities for a placement year to increase our students' employability which may help attracting more female applicants.

In addition to career events in the School and in QUB, final year students will be invited to a chat with their AOS or PT to discuss their future career options in order to increase applications to postgraduate courses.

Action A1.9	• The School will introduce 1-year placements with employers and actively promote the schemes.
Action A2.1	• Prospective supervisors to actively encourage female candidates to apply for PhD projects.
	• Review the advertisements description for new PGR projects to include a paragraph on the School's commitment to the Athena SWAN and IOP Juno principles.
	• Research clusters to hold presentations of PhD projects and invite last year MSci students to attend.
	• Hold a showcase event during the year to present research projects by PhD students. Best female and male presentation to receive a prize.

- Display information on current and past female PhD students in the School's website.

- Final year UG students to meet their AOS or PT to discuss possible career options including PGT or PGR courses.

[Word Count 180]

[Word Count Sec. 4.1: 1544]

4.2. Academic and research staff data

(i) Academic staff by grade, contract function and gender: research-only, teaching and research or teaching-only

Look at the career pipeline and comment on and explain any differences between men and women. Identify any gender issues in the pipeline at particular grades/job type/academic contract type.

All academic staff in the School work full-time, 97% of them have a 'Teaching and Research' profile and the remaining have a 'Teaching only' profile, Fig.4.2.1. The percentage of female academics is 21%, on par with the national average (HESA 2018/19). The total fraction of female Lecturers has increased from 24% in 2014/15 to 33%.

After a successful recruitment campaign, which had a positive **impact** from the increased visibility of the AS and IOP Juno activities, four female Lecturers were hired in the last 3 years, exceeding our target of the previous **AP**. The career progression and corresponding actions will be discussed in Sec.5.
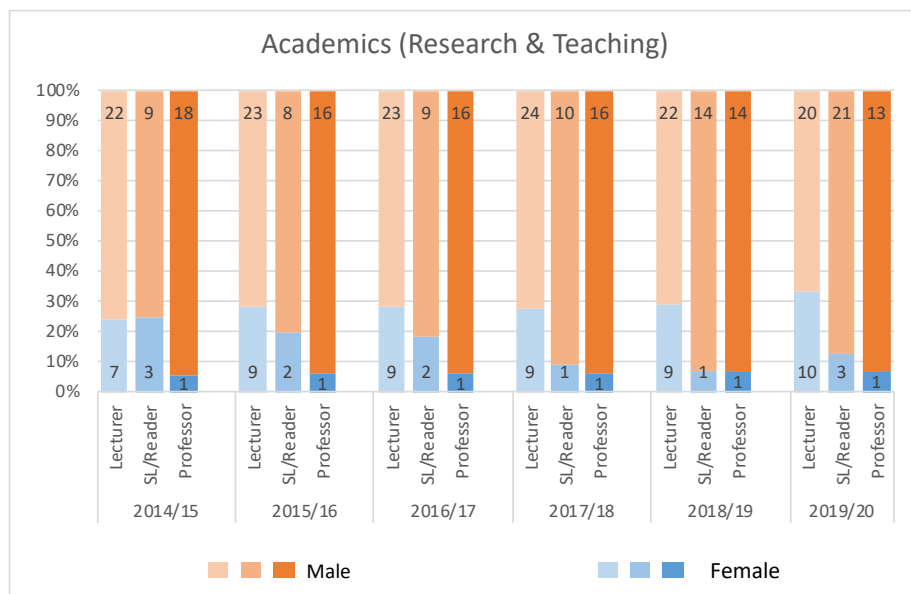
Figure 4.2.1: Percentage of female academic staff (research and teaching) in the School. Absolute numbers are shown inside the bars.

Fig.4.2.2 and Table 4.2.1 show the number of research staff, including postdoctoral research assistants (PDRAs) and research fellows. The number of research staff in Maths is very low due to the nature of the subject area (less collaborative and lower funding compared to Physics). In Physics, the number of female researchers increased from 2 female PDRAs in 2015/16 to 10 in 2018/19. The fraction of female PDRAs is the largest since 2011/12 and evidences the **impact** of our previous **AP**: inclusion in all job advertisements of information on annual leave and flexible working; recruitment panels always have female representation.
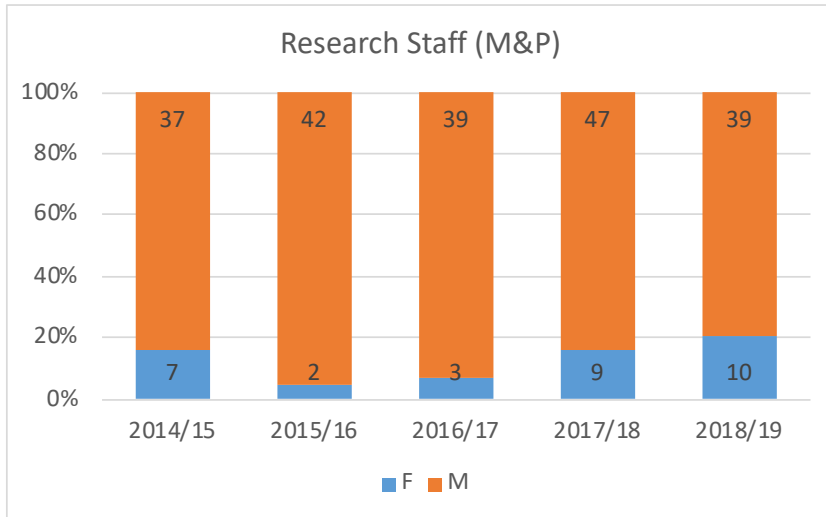
Figure 4.2.2: Percentage of female and male research staff in Maths and Physics. Absolute numbers are shown inside the bars.

Research Staff by grade and gender											
2014/15	Maths				Physics				Maths & Physics		
Grade	M	F	%F	Total	M	F	%F	Total	M	F	%F	Total

Grade	M	F	%F	Total	M	F	%F	Total	M	F	%F	Total
AC1	0	0		0	3	1	25%	4	3	1	25%	4
AC2	0	0		0	31	5	14%	36	31	5	14%	36
AC3	0	0		0	1	1	50%	2	1	1	50%	2
AC4	0	0		0	2	0	0%	2	2	0	0%	2
Total	**0**	**0**		**0**	**37**	**7**	**16%**	**44**	**37**	**7**	**16%**	**44**

2015/16	Maths				Physics				Maths & Physics			
Grade	M	F	%F	Total	M	F	%F	Total	M	F	%F	Total
AC1	0	0		0	2	0	0%	2	2	0	0%	2
AC2	1	0	0%	0	35	2	5%	38	36	2	5%	38
AC3	0	0		0	3	0	0%	3	3	0	0%	3
AC4	0	0		0	1	0	0%	1	1	0	0%	1
Total	**1**	**0**	**0%**	**1**	**41**	**2**	**5%**	**43**	**42**	**2**	**5%**	**44**

2016/17	Maths				Physics				Maths & Physics			
Grade	M	F	%F	Total	M	F	%F	Total	M	F	%F	Total
AC1	0	0		0	3	0	0%	3	3	0	0%	3
AC2	0	0		0	33	3	8%	36	33	3	8%	36
AC3	0	0		0	2	0	0%	2	0	0	0%	0
AC4	0	0		0	1	0	0%	1	1	0	0%	1
Total	**0**	**0**		**0**	**39**	**3**	**7%**	**42**	**39**	**3**	**7%**	**42**

2017/18	Maths				Physics				Maths & Physics			
Grade	M	F	%F	Total	M	F	%F	Total	M	F	%F	Total
AC1	0	0		0	4	0	0%	4	4	0	0%	4
AC2	0	1	100%	1	40	8	17%	48	40	9	18%	49
AC3	0	0		0	2	0	0%	2	2	0	0%	2
AC4	0	0		0	1	0	0%	1	1	0	0%	1
Total	**0**	**1**	**100%**	**1**	**47**	**8**	**15%**	**55**	**47**	**9**	**16%**	**56**

2018/19	Maths				Physics				Maths & Physics			
Grade	M	F	%F	Total	M	F	%F	Total	M	F	%F	Total
AC1	0	0		0	4	2	33%	6	4	2	33%	6
AC2	0	0		0	31	8	21%	39	31	8	21%	39
AC3	0	0		0	3	0	0%	3	3	0	0%	3
AC4	0	0		0	1	0	0%	1	1	0	0%	1
Total	**0**	**0**		**0**	**39**	**10**	**20%**	**49**	**39**	**10**	**20%**	**49**

Table 4.2.1. Number of research staff in the School by grade and gender.

Action A3.2	• Each research centre will encourage final year PhDs and PDRAs, especially female researchers, to apply for a research fellowship. Mentors will be assigned to act as critical friends and provide feedback on specific research ideas and grant schemes.
	• Organise information sessions on Fellowships.
	• Every 3 months a SAT Chair will attend the 'PDRA coffee morning' to enquire about the general thoughts about fellowship applications and identify interested applicants.

There is no example within the reporting period.
[Word Count 320]

(ii)   Academic and research staff by grade on fixed-term, open-ended/permanent and zero-hour contracts by gender

Comment on the proportions of men and women on these contracts. Comment on what is being done to ensure continuity of employment and to address any other issues, including redeployment schemes.

The distribution of academic and research staff (both Maths & Physics) according to fixed-term and permanent contracts is shown in Table 4.2.2. Zero-hour contracts are not used.

The small number of staff at AC1 corresponds to final year PhD students to support them in the completion of their thesis. The majority of fixed term contracts are at the AC2 grade which is the most common for PDRAs. The proportion of females in the AC2 category has significantly increased in the last few years. Line managers will encourage PDRAs to apply for major fellowships and permanent academic jobs, in our School or elsewhere.

》 A3.1

》 A3.2

A similar increasing trend is observed for permanent contracts at the AC3 level. Although contract data from 2019/20 are not yet available, the number of females with a permanent AC4 contract (SL/Reader) has increased from one to three in the last year. This **impact** has been measured through the School's Survey which showed an increasing support given to applicants for promotions (Sec.5.1). While there is a single female Professor in the School, we will continue to encourage and care for our female academic staff for progression to higher grades (Sec.5.3).

IMPACT

Fixed Term Contracts

Grade	AC1			AC2			AC3			AC4			Prof.		
Year	M	F	%F	M	F	%F	M	F	%F	M	F	%F	M	F	%F
2014/15	3	1	25%	31	5	14%		1	100%	1		0%	1		0%
2015/16	2		0%	37	3	8%	4		0%						
2016/17	3		0%	37	4	10%	3		0%						
2017/18	4		0%	41	10	20%	4		0%				1		0%
2018/19	4	2	33%	32	9	22%	4		0%				1		0%

Open ended (permanent) contracts															
Grade	AC2			AC3			AC4			Prof					
Year	M	F	%F	M	F	%F	M	F	%F	M	F	%F			
2014/15	2	2	50%	21	5	19%	10	3	23%	17	1	6%			
2015/16	1	2	67%	20	6	23%	9	2	18%	16	1	6%			
2016/17		1	100%	20	7	26%	10	2	17%	16	1	6%			
2017/18	2	1	33%	20	8	29%	11	1	8%	15	1	6%			
2018/19	4	1	20%	16	7	30%	15	1	6%	13	1	7%			

Table 4.2.2. Number of academic and research staff on fixed-term (above) and open-ended/permanent (below) contracts in the School by grade and gender. There are no zero-hour contracts in the School. Data for 2019/20 not yet available.

Action A3.1	• Line managers and personal development reviewers will encourage female prospective candidates to apply for PDRA and Lecturer positions in the School and elsewhere during their appraisal.
Action A3.2	• Each research centre will encourage final year PhDs and PDRAs, especially female researchers, to apply for a research fellowship. Mentors will be assigned to act as critical friends and provide feedback on specific research ideas and grant schemes.

[Word Count 192]

(iii)   Academic leavers by grade and gender and full/part-time status

Comment on the reasons academic staff leave the department, any differences by gender and the mechanisms for collecting this data.

The number of academic leavers is shown in Table 4.2.3. The years 2014/16 saw many departures, mainly due to a University-wide voluntary severance/early retirement scheme taken by 8 of our staff members including one female AC4 academic. Other reasons for academics to leave include normal retirement or due to illness or resignation. As mentioned earlier, three female academics left the School in the last 5 years. Most of these academics now work in other HEI in EU countries, affected possibly by Brexit. The turnover has been mitigated by recent recruitment campaigns which increased the number of permanent female academics. Research staff leavers are mostly at AC1/AC2 positions with 'end of contract' as the most common reason.

Interestingly, 40% of the female postdocs that left went to work in another HEI compared to only 31% male postdocs.

Years: 2014-19	AC1/AC2		AC3		AC4		Professor		Total	%F
	M	F	M	F	M	F	M	F		
Academic	0	0	4	2	4	1	6	0	17	18%
Research	54	9	3	0	1	0	0	0	67	13%

Table 4.2.3. Number of academic and research leavers by grade and gender. All numbers are full-time status except one part-time professor in 2017/18.

Action A4.8	• Liaise with People & Culture (previously, HR) to review and investigate causes for departures of any permanent staff. Identify anomalies and gender differences.

[Word Count 137]

[Word Count Sec. 4.2: 649]

[Word Count Sec. 4: 2193]

5. SUPPORTING AND ADVANCING WOMEN'S CAREERS
Recommended word count: Silver: 6500 words

5.1. Key career transition points: academic staff
(i) Recruitment

Break down data by gender and grade for applications to academic posts including shortlisted candidates, offer and acceptance rates. Comment on how the department's recruitment processes ensure that women (and men where there is an underrepresentation in numbers) are encouraged to apply.

Fig.5.1.1 shows that the percentage and number of female applicants for academic and research posts have significantly fluctuated over the last years with an increase in 2018/19.
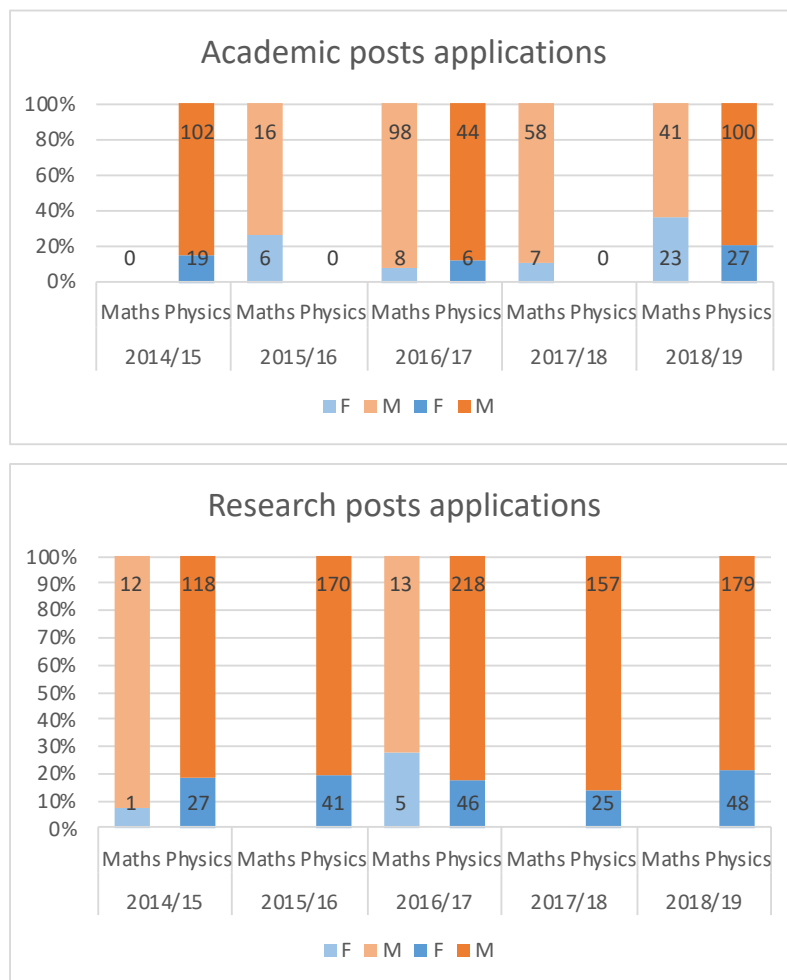
Figure 5.1.1: Percentages of female and male applicants for academic (top, including 'Teaching and Research' and 'Education only' posts) and research (bottom) posts in Maths and Physics. Absolute numbers inside the bars.

Table 5.1.1 shows that the fraction of female academics shortlisted, offered a position or appointed is larger than the fraction of female applicants, indicating no adverse bias; the success rate for women is three times that of men. For research positions, there seems to be a slight decrease in percentage from applications to offers but numbers are

too small to draw solid conclusions. Success rate for research positions are similar for men and women. Our numbers are comparable to other UK Maths and Physics departments of similar size, where the number of open positions fluctuates, due to funding, affecting both male and female applicants. To increase the number of female research and academic staff, we will review the recruitment and selection processes and put actions in place to encourage female applications.

» **A3.1**

2014-2019	Applications			Shortlisted			Offers			Appointed			Success Rate	
	M	F	%F	M	F	%F	M	F	%F	M	F	%F	M	F
Academic staff	512	113	18%	101	33	25%	28	17	38%	18	10	36%	5%	15%
Research staff	797	197	20%	224	51	19%	65	13	17%	52	9	15%	8%	7%

Table 5.1.1: Summary of Academic and Research staff recruitment (applications, shortlist, offers, appointments) for Maths and Physics. The last two columns show the success rate for men and women, defined as the number of offers for each gender divided by the number of applications for that gender. For academics, 27 appointments were at Lecturer level while 1 was a male Reader.

The School follows the University's measures to ensure the selection process is always fair:
- All members of the selection panel have undergone UB and selection interview trainings.
- There is at least a member of the selection panel of each gender. We will introduce the policy that members of other Schools from EPS can join the panel if needed. This will reduce panel commitment of the School's female staff.

» **A3.1**

IMPACT

Additionally, a policy introduced from our previous **AP** states that if no female candidates are shortlisted, the chair of the panel needs to report to the HOS a justification for this, with no cases in the reporting period.

Our latest survey indicated that 100% of newly appointed academics perceived the application and selection process as fair and clear.

The School encourages women to apply for research and academic posts by adding a text in all advertisements with information on our commitment to GE, diversity, flexible working and family friendly policies. Additionally, the logos of the AS Silver and IOP Juno Champion awards will be included.

» **A3.1**

Action A3.1	• Revise material provided to prospective candidates. Review job descriptions for gendered language. Include text on all adverts to emphasise the School and University's commitment to gender equality alongside Athena SWAN and Juno logos.
	• Create a check list with gender equality information that can be distributed to all the Chairs of recruitment panels.

- Ensure that recruitment panels always have female representation, with panellists from Schools in EPS if necessary.

- We will work with People and Culture (HR)/Finance to explore how to set up a childcare cover scheme for prospective interview attendees at QUB.

[Word Count 331]

(ii)   Induction

Describe the induction and support provided to all new academic staff at all levels. Comment on the uptake of this and how its effectiveness is reviewed.

Part of this section is common to all research, academic and PSS.

New staff receive a structured and formal induction, initiated by their personal development reviewer. This is outlined in the Staff Starter Pack (Fig.5.1.2), which includes guidance following appointment, the School's Staff Handbook and the Teaching Handbooks for teaching staff. All resources are available within the School's *SharePoint* library. New staff receive a formal welcome email from the School Manager, which is copied to all relevant staff: their line manager, School Office and Computing Support Officer.

QUEEN'S UNIVERSITY BELFAST | SCHOOL OF MATHEMATICS AND PHYSICS

Staff Starter Pack

Induction Process

Welcome to our School!

Athena SWAN Silver Award | **IOP** Institute of Physics | Institute of mathematics

⟫ **A5.8**

Figure 5.1.2: A screenshot of the cover of the School Staff Starter Pack document.

The School aims to promote an ethos of collegiality. To welcome new staff, the School hosts a monthly 'Staff Get Together', which is always very well attended by all staff, Fig.5.1.3. These are scheduled at different days and times to allow staff with different responsibilities, e.g. teaching, to attend. An announcement within our School's monthly E-zine, which details all the new staff and their area, is also included.

Figure 5.1.3: Pictures from recent 'Staff Get Together' and 'School Breakfasts': top left as part of International Men's Day November 2019; top right welcome event for new staff (February 2020); bottom Christmas Hooley 2019.

New academic appointments are placed on a 3-year probation period with the following provisions:
- A probationer and a mentor (senior academic staff) to provide day-to-day support.
- A reduced administration and teaching workload compared to staff confirmed in post.
- Involvement in the supervisory team of a PhD student making them eligible for promotion soon after being confirmed in post (successful PhD supervision is a promotion criterion).
- Induction and training days centrally run by the University.
- A start-up fund to use towards essential equipment and travel, to build their research portfolio.

The process for confirmation in post has recently changed and been integrated with the promotion exercise in a unified Academic Progression. A Personal Development Review (PDR), which replaced the old appraisal scheme, occurs annually with a reviewer who is normally the DR or the ADE. The School Progression Committee annually reviews all probationers and ratifies those applying for confirmation in post. The committee includes the HOS, DRs, the DE, a member of the SAT, and the probationer's PDR reviewer.

Action A5.8	• Include Gender Equality in induction packs for all staff. Quarterly, include a summary for the monthly School's newsletter (E-Zine), which is distributed to all staff members, with news, events and opportunities related to Gender Equality.

[Word Count 325]

(iii)   Promotion

Provide data on staff applying for promotion and comment on applications and success rates by gender, grade and full- and part-time status. Comment on how staff are encouraged and supported through the process.

All academics are encouraged to apply for promotion by their DRs and the HOS during informal conversations or the newly introduced PDR. Information on the promotion criteria and other support is provided by the University's dedicated webpages, the QGI Mentoring Scheme, talks on career progression by representatives from HR and by the HOS (previous **AP**). The **impact** of the additional support is evident in the increased number of female applications, from zero applications in 2014-2017 to four in the last two promotion exercises (Table 5.1.2). See also quote in Sec.4.2(i), page 33. 100% of the promoted female staff were involved in the QGI Mentoring Scheme. In the last two years, the success rate for female applicants increased from 50% to 100%. The number

IMPACT

of promotions to Professor is very small with only one successful male application in the last 5 years (Fig.5.1.4).

Many early-career female Lecturers, appointed in recent years, are only just starting to be eligible for promotion or have only just started to have had the time to build up their promotion portfolio after being confirmed in post. Thus, it will take time for these staff members to work through.

Academic promotion	Application						Promotion		Success	
	M Applied	M Eligible	% eligible applied	F Applied	F Eligible	% Eligible applied	M	F	M	F
2014/15	6	20	30%	0	4	0%	2	N/A	33%	N/A
2015/16	1	20	5%	0	4	0%	1	N/A	100%	N/A
2016/17	2	28	7%	0	8	0%	1	N/A	50%	N/A
2017/18	4	28	14%	2	7	29%	3	1	75%	50%
2018/19	10	29	34%	2	7	29%	8	2	80%	100%
Total	23	125	18%	4	30	13%	15	3	65%	75%

Table 5.1.2 Promotion applications, compared to the eligible pool, for all grades and success rates by gender. There are no applicants with part-time appointments.
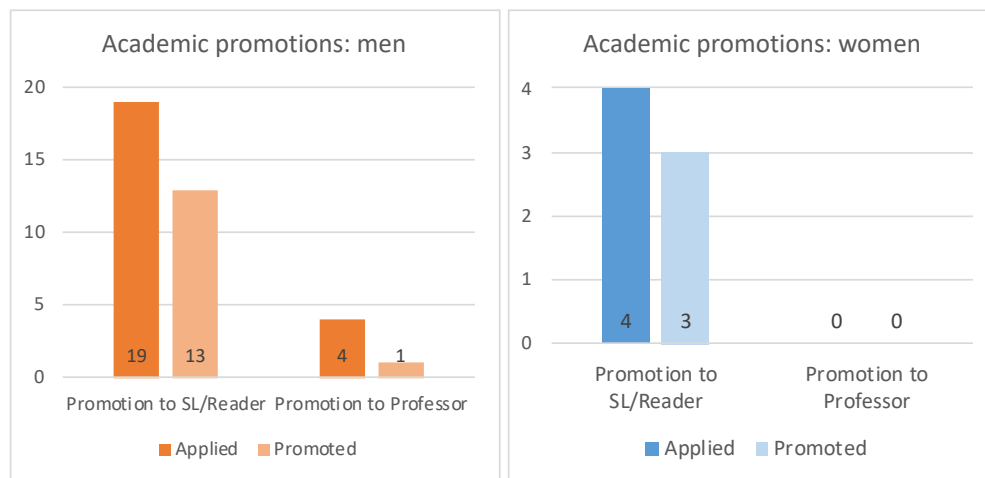
Figure 5.1.4: Total number of applications for Senior Lecturer (SL)/Reader and for Professor compared to the number of promotions for male (left) and female (right) academics, in the period 2014-2019. Notice the different scale of the vertical axis in each chart.

The School's 2019 survey shows that more than 80% of the respondents, irrespectively of their gender, have received support, advice or mentoring about promotion, Fig.5.1.5. This **impact** originates from our previous actions mentioned above. Among the people that answered negatively, only one man applied for promotion; the others did not apply, hence their negative answer. We will review the questions for the next survey to avoid the ambiguity of this question. Eligible staff that did not apply for promotion reported that they did not because they did not feel ready or thought they would be unsuccessful.

IMPACT

A4.9
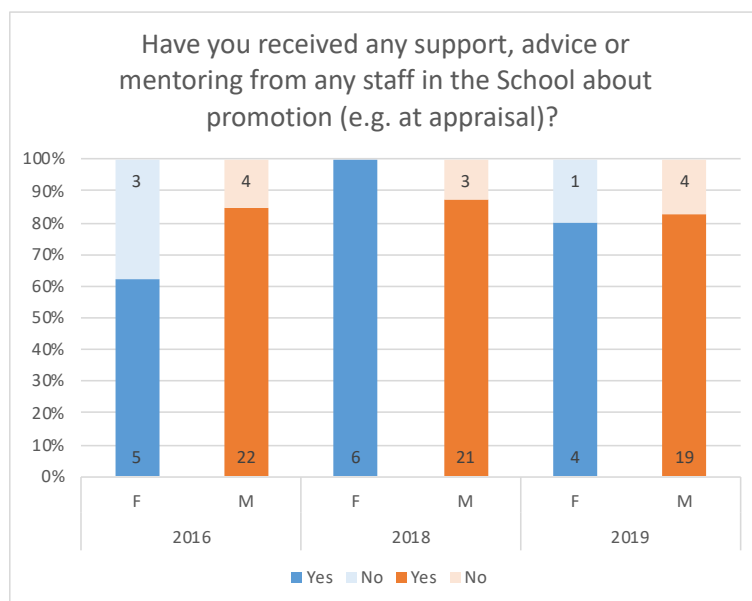
Figure 5.1.5: Responses from the annual academic staff survey on support for promotion.

Applications for promotion are reviewed by a School Progression Committee comprising: the HOS, DRs, the DE, a member of the SAT, the probationer's PDR reviewer and two external Professors, at least one of them being female to ensure diversity (previous **AP**). Recommendations are then forwarded to Faculty and University committees.

The HOS and DR provide feedback to unsuccessful applicants giving further advice to reinforce the applicant's profile for the next promotion exercise.

With a new promotion exercise in progress, see Sec.7, we will closely monitor the application and success rates, analysing the impact of these significant changes. The SAT will run awareness workshops and trainings for promotion, especially aimed at female academics.

Action A4.2	• Prompt all academic staff members, especially female academics, who are eligible to apply for promotion, to organise a PDR meeting. Reviewers to initiate a discussion about academic progression with Reviewees eligible for promotion.
	• Ensure that all Reviewers are trained for the new PDR process.
	• Encourage academic staff members to participate in University, Faculty and School information sessions for promotion. Encourage female staff to participate in workshops and the QGI Mentoring Scheme.
	• Support female academics by actively nominating them for prizes/awards and encouraging them to apply for funding.

		Organise informal 'book club'-style meetings to discuss the application process for promotion and analyse applications from former successful applicants. The SAT Chairs, in collaboration with the QUB SWAN Champions Network, will discuss experiences from each School after the first round of promotions and design actions to improve the new process.
Action A4.9	•	A group of SAT members representing each category (PGR, PDRA, PSS and Academics) will review the questions of the School's survey.

[Word Count 400]

(iv)   Department submissions to the Research Excellence Framework (REF)

Provide data on the staff, by gender, submitted to REF versus those that were eligible. Compare this to the data for the Research Assessment Exercise 2008. Comment on any gender imbalances identified.

Data for RAE2008 and REF2014 are shown in Table 5.1.3. The fraction of female staff submissions in both Maths and Physics has increased significantly. Both in 2008 and 2014, we had a policy of full eligible staff submission, a very rare thing in the UK, but it was deemed to be important for staff morale. In 2014, we performed well: 19th in the UK for Physics in terms of average grading across the exercise, 3rd in terms of 'Research Intensity'; Mathematics ranked in the top 20 for 'Research Intensity'. This meant that everyone in the School had ownership over the success, not only keeping everyone engaged but also contributed to the atmosphere in the School. The School encourages all academic staff to disclose personal circumstances, e.g. maternity leaves, for their REF submission.

RAE2008						REF2014					
Physics			Maths			Physics			Maths		
M	F	%F	M	F	%F	M	F	%F	M	F	%F
48	5	9%	8	1	11%	38	7	16%	8	4	33%

Table 5.1.3 Number of female and male academic and research staff submitted for RAE2008 and REF2014. All eligible staff were submitted.

[Word Count 132]

[Word Count Sec. 5.1: 1185]

5.2. Key career transition points: professional and support staff

(i) Induction

Describe the induction and support provided to all new professional and support staff, at all levels. Comment on the uptake of this and how its effectiveness is reviewed.

The induction for PSS is identical to that for academic and research staff (see Sec.5.1(ii)).

[Word Count 15]

(ii) Promotion

Provide data on staff applying for promotion, and comment on applications and success rates by gender, grade and full- and part-time status. Comment on how staff are encouraged and supported through the process.

In line with many UK universities, promotion is not available to PSS; career progression occurs either through re-grading of a post or through appointment to a higher-graded post elsewhere within the Institution.

In 2018/19, there have been the following vacancies within the School:

All existing PSS have been encouraged to apply for the advertised posts and one female member of staff was appointed within the School.

The School supports 'Acting Up' opportunities, in which a member of staff temporarily works and is paid at a higher grade. 'Acting Up' staff are mentored by the School Manager, attend relevant training and are added to the Faculty network groups of peers, for example the Education Administrators Forum, which our staff find extremely useful. In the last 2 years, all clerical staff at Grade 4 have been encouraged to apply for four 'Acting Up' positions, all filled by female staff (Table 5.2.1). One of these was converted to a permanent re-grading. These opportunities are much appreciated by staff, see quote.

> *"Acting up has enabled me to further my own professional development, for which I am grateful. I would like to thank my line manager for fully supporting me throughout this process."*
> *Anonymous PSS*

Table 5.2.1 Recent 'Acting Up' uptakes.

We will actively encourage and put staff forward for future 'Acting Up' opportunities, as this type of activity provides skills and career development for moving to higher grades within the School or, more commonly, within the University.

The University is currently reviewing the PSS career progression and our School will full commit to the new scheme.

Action A4.6	• Identify PSS for 'Acting Up' opportunities; support them in the new role; revise avenues for permanent regrading or movement within the School/University.
Action A4.10	• The University is currently reviewing the career progression mechanism for PSS. The School will fully commit to the new scheme collecting feedback from PSS staff.

[Word Count 267]

[Word Count Sec. 5.2: 282]

5.3. Career development: academic staff

(i)   Training

> Describe the training available to staff at all levels in the department. Provide details of uptake by gender and how existing staff are kept up to date with training. How is its effectiveness monitored and developed in response to levels of uptake and evaluation?

During inductions, new academics are encouraged to attend training courses available via the Staff Learning and Development Programme (SLDP). Compulsory training for all academic staff includes the 'Postgraduate Certificate in Higher Education Teaching' (PGCHET) and 'Supervising Research Students'. All staff must also complete several online trainings including the diversity-related 'Think Difference. Act Differently' and UB, both with a 100% completion rate. Staff members are reminded by the School Manager to keep up to date with these trainings.
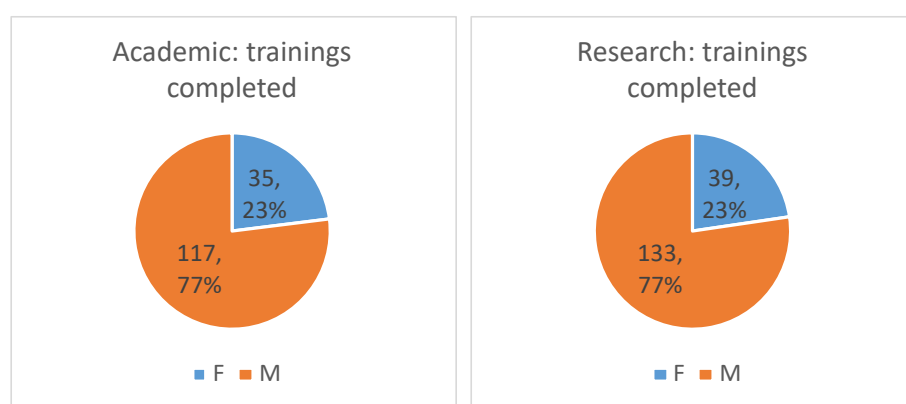
Figure 5.3.1: Number of trainings (both mandatory and non-mandatory) completed in 2018/19 by Academic and Research staff. Absolute numbers and percentages are reported. Trainings include both traditional and online ones.

Additional non-mandatory courses available to both academics and PDRAs are also offered by the SLDP, including:

» A4.2

- Diversity & Inclusion - LGBT Allies
- Management and Leadership in a Research Role
- An introduction to cultural awareness and sensitivity

The number of completed trainings, mandatory and non-mandatory, is shown in Fig.5.3.1. The percentages of completions by female staff are in line with population and no particular bias is evident. Comments from the School's survey show that these activities are perceived as useful.

All female staff are also encouraged to avail of the QGI Mentoring Scheme (uptake in the last 3 years: 3 members of staff, 100% promoted) and are invited to participate in QGI activities, e.g. the Juno Co-Champion participated as a speaker in the recent Communication Clinic in 2019. Further activities are organised by the SENSE network.

QUB offers courses for PDRAs, for instance:
- Project Management in the Real World
- Tell your Research Story
- Emotional Resilience workshop

The opportunity for PDRAs to attend courses on teaching also provides support for their transition to Lecturers. In 2018/19, 8 male and 2 female PDRAs supported teaching activities. We will work towards increasing the number of PDRAs taking up teaching duties and associated training.

Action A3.1	• The SAT will financially support one PDRA per year to attend training for teaching in Higher Education Institutions, e.g. PGCHET. PDRAs will apply for the support and candidates will be selected by a School's panel based on their previous involvement in teaching activities.
Action A3.3	• Advertise the QUB's central funding available to organise specialist training during 'PDRA coffee mornings' and through the PDRAs and PGR rep, particularly Line Managers/Supervisors to encourage women to avail of this.
	• The School will allocate an annual budget for specialist external training. Research and Academic staff will bid to use the funding on a competitive basis. If oversubscribed analyse gender breakdown of successful and unsuccessful applications.
Action A4.2	• Review annual uptake of non-compulsory training and identify any gender gap.

[Word Count 275]

(ii)   Appraisal/development review

Describe current appraisal/development review schemes for staff at all levels, including postdoctoral researchers and provide data on uptake by gender. Provide details of any appraisal/review training offered and the uptake of this, as well as staff feedback about the process.

The previous appraisal scheme was compulsory for all academic and research staff, excluding those on probation, with 100% uptake; relevant training was provided for appraisers, normally line managers. However, most of the staff did not see it as a valuable use of their time: there had been some issues regarding workload and its allocation. For example, our 2019 survey revealed that 35% of female academics (18% males) disagreed or strongly disagreed with the statement: "My workload is always usefully discussed in my appraisal" (34% for all PSS).

As mentioned above, in 2019/20, QUB replaced the appraisal process with a unified PDR in response to staff feedback gathered in a University-wide survey. The PDR is an annual exercise for all staff (research, academic, PSS) in which a meeting between a staff member and their Reviewer (the line manager) is conducted to discuss the

progress of previously set objectives and to decide future ambitions and goals, including career plans and progression. This meeting provides an opportunity to discuss work-life balance and mitigating circumstances that can impact the Reviewee's activities such as family leaves, caring responsibilities, absences due to illness, or career breaks. The University has provided several training sessions centrally and in our School. All staff have received booklets and guidelines on the PDR.

PDR, although strongly encouraged, is only compulsory for staff on probation and for academic staff wishing to apply for promotion in a given academic year. For the latter category, the reviewer writes a PDR summary report which accompanies the application for academic progression.

Since this is the first year that the scheme has been introduced, we do not have yet feedback on the process. We will review the uptake and identify issues to improve the process.

»» A4.2
»» A4.3

Action A4.2	• Prompt all academic staff members, especially female academics, who are eligible to apply for promotion to organise a PDR meeting. Reviewers to initiate a discussion about academic progression with Reviewees eligible for promotion.
	• Ensure that all Reviewers are trained for the new PDR process.
Action A4.3	• Investigate the quality and uptake of the PDR process especially for those staff members on probation, PSS or those academics eligible to apply for promotion.

[Word Count 288]

(iii)   Support given to academic staff for career progression

Comment and reflect on support given to academic staff, especially postdoctoral researchers, to assist in their career progression.

For academics, a major support mechanism for career progression is the PDR scheme described above. A series of talks, training and Q&A sessions have been organised in collaboration with P&C/HR at the School, Faculty and University level. The SAT will ensure that a sufficient level of training is delivered annually within the School.

Figure 5.3.2: Lunch on a sunny day during the 'PhD and Postdoc Career day' 2018.

Similarly, PDRAs benefit from discussions with their Line Manager during the PDR. The School supports a Postdoctoral Forum supervised by an academic Postdoctoral Advisor. The Forum has its own budget to organise monthly coffee afternoons and pizza nights. The Forum provides a socialising space and identifies issues reported by the PDRA representatives to the SAT. The PDRA representatives, together with a few PhD representatives, organise the annual 'PhD and Postdoc Career Day' (Fig. 5.3.2). In 2019, there were 47 participants (28% women), with talks by a Nature Astronomy Editor and speakers from Northern Irish companies (3 female speakers, 4 males). The event was highly appreciated by both participants and speakers, and it will continue to be organised annually. In 2019, the event was showcased by the University as a 'Best Practice Example'.

"I thoroughly enjoyed the range of activities. A great opportunity to meet other PDRAs and PhDs. I would love to attend another day like this"
A participant to the 'PhD and Postdoc Career Day'

IMPACT

Career openings in academia, including Lecturer positions and Fellowships, are advertised in the School through emails to PDRAs and at training events. Responses from the School's survey (Fig.5.3.3) show that willingness for applying for research fellowships has increased steadily in the last 3 years. However, PDRAs are not encouraged enough by their mentor.

"My line manager is very supportive in terms of providing me with opportunities to participate in conferences."
Anonymous PDRA

IMPACT

A3.2
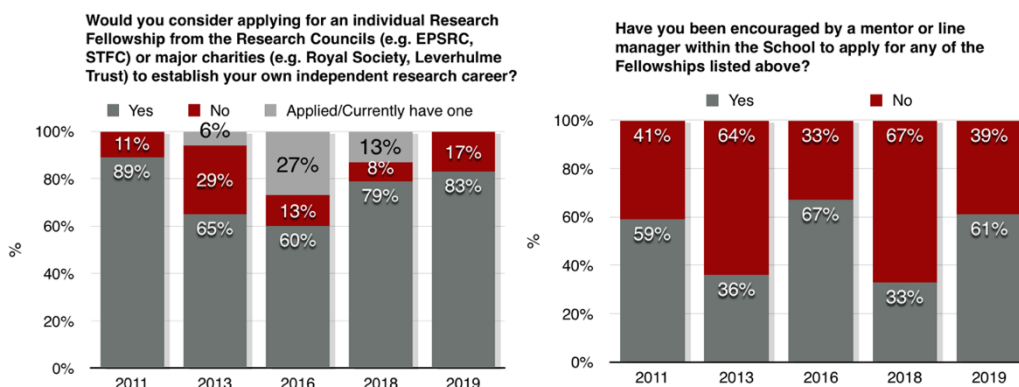
Figure 5.3.3: Responses from the annual research staff survey on support about fellowships. Data for women and men are aggregated due to the small number of respondents (between 15 and 20 per year).

QUB supports female staff to participate in the Advance-HE Aurora programme aimed at women's career development. We will identify and nominate potential female staff in the School to attend the programme.

A4.6

Comments from the School's survey have highlighted the need of specialised training besides the courses organised by QUB. In response to this, the School has organised several discipline-focused courses, e.g. on 'High-Performance computing' and 'Electron backscattering diffraction', aimed at PGR and all Staff (Fig.5.3.4). We will advertise available funding, in the School and the University, to organise specialist training events.

IMPACT

A3.3

Figure 5.3.4: Participants to some of the School specialist training for PGR and all Staff.

Action A3.2	• Each research centre will encourage final year PhDs and PDRAs, especially female researchers, to apply for a research fellowship. Mentors will be assigned to act as critical friends and provide feedback on specific research ideas and grant schemes.
	• Organise information sessions on Fellowships.
	• Every 3 months a SAT Chair will attend the 'PDRA coffee morning' to enquire about the general thoughts about fellowship applications and identify interested applicants.
Action A3.3	• Advertise the funding available from QUB to organise specialist training during 'PDRA coffee mornings' and through the PDRAs and PGR rep, particularly Line Managers/Supervisors to encourage women to avail of this.
	• The School will allocate an annual budget for specialist external training. Research and academic staff will bid to use the funding on a competitive basis. If oversubscribed analyse gender breakdown of successful and unsuccessful applications.
Action A4.6	• Identify candidates to participate in the Advance-HE Aurora Leadership programme aimed specifically at leadership development for women.

[Word Count 382]

(iv)   Support given to students (at any level) for academic career progression

Comment and reflect on support given to students at any level to enable them to make informed decisions about their career (including the transition to a sustainable academic career).

All students in the School are supported by two Career Liaison Academics, one for Maths and one for Physics. They organise initiatives such as the 'Meet the Employers event' and advertise internships. In 2018/19 the School facilitated 7 internships (5 women and 2 men) at external companies such as Clarus Financial or Belfast Hills Partnership.

"I had the best internship experience"
"It was really good, I loved it!"
Anonymous female student who participated to the internships.

UGs are supported by PT and AOS who provide advice on academic and career issues (Sec.4.1(ii)). The Peer Mentors provide support for first year students. MSci and PGT students are provided with computers and desk space within the School for their project work to enhance their computational skills. In Maths, all L3 students must take a computational module. In Physics, the 'Professional Skills' module, which aims at developing presentation, CV writing and interview skills, has become compulsory for all students to enhance employability.

Every year the School offers financial support to up to three female UG Physics students to attend the 'Conference for Undergraduate Women in Physics' (CUWiP), Fig. 5.3.5.

"The CUWiP conference was a fantastic experience, I really enjoyed meeting so many inspirational female physicists [...] I also enjoyed meeting female physics students from all across the UK and have continued to keep in touch after the conference.
[...]
I'm so grateful that the school of Mathematics and Physics at Queen's University Belfast supported my travel to the conference as it was a rewarding and inspiring opportunity."
One of our students who participated to the CUWiP conference.

QUB has a large programme of career fairs, employment days and field trips to companies to inform students and facilitate their career choices. In 2017, QUB introduced the *Development Weeks*, during which all students can attend trainings to widen their set of skills. Our School has been successful in organising non-compulsory activities with more than 500 attendances in 2018 (second largest in QUB after the School of Medicine, where attendance was compulsory).

Employability of our students is very strong, with slightly more female students employed than male students (Fig.5.3.6).
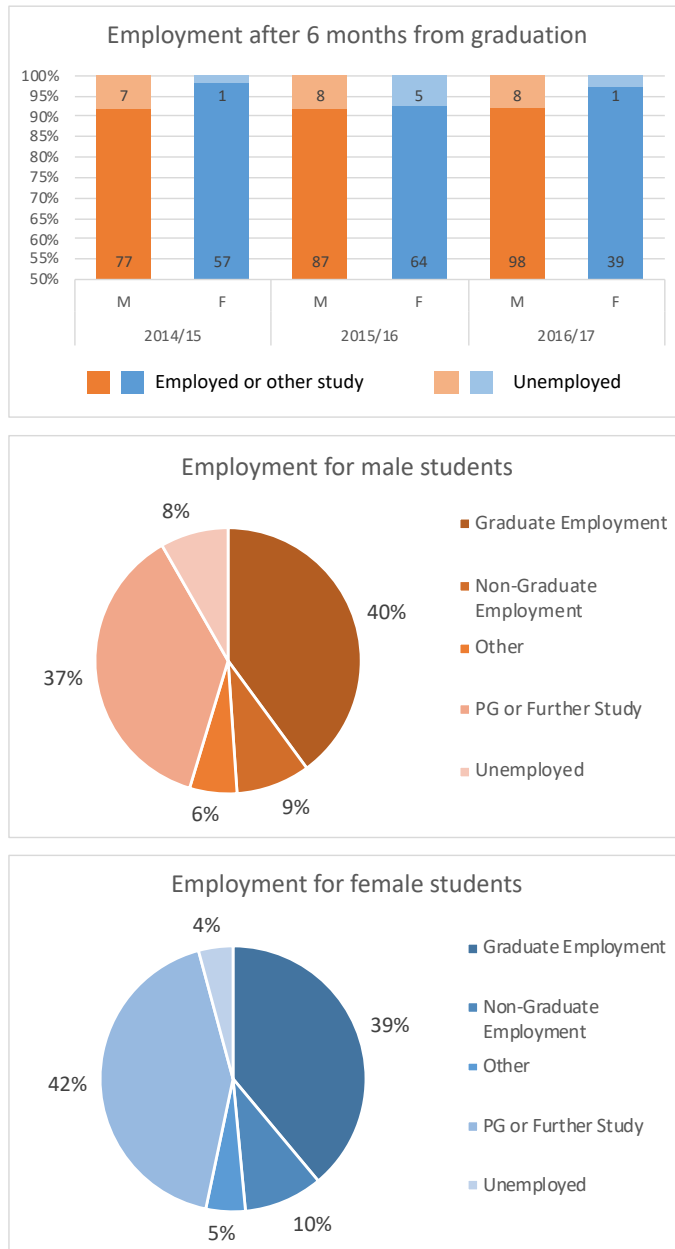
Figure 5.3.6 Top: Fraction of employed former students (UG, PGR and PGT, Maths and Physics) after 6 months from graduation. Middle and Bottom: for the period 2014-2017 and for all students, distribution of employment after 6 months from graduation for men and women, respectively.

Additionally, all PhD students are invited to the 'PhD and PDRA career day' and fellowships training previously mentioned. Progression of PhDs is reviewed at the Annual Progress Review (APR) together with completed training activities.

A recent PGR focus group highlighted the discrepancies in the formats of APR across the different research centres in the School, indicating disparity in the style and work needed from students. In response, we will homogenise the APR across the School.

》》 A2.3

Our School's surveys indicate a significant increase in the percentage of female PhDs thinking that an academic career is a good option, from 15% in 2018 to 36% in 2019. Reasons include: "rewarding", "intellectual stimulation", "benefits from teaching". This may be the **impact** of the increased visibility of role models, e.g. the larger number of female postdocs in 2019, Fig. 4.2.3. Nonetheless, only 20% of female and 34% of males PhDs plan to stay in academia with a decrease from 50% for both genders in 2018. Reasons cited for not wishing to pursue an academic career include: lack of jobs/job security; monetary concerns; work-life balance.

IMPACT

In response, we will introduce a PhD/PDRA mentoring scheme and support PGR with caring needs that wish to attend a major conference. Moreover, the new female academics hired in recent years will act as role models (Sec. 5.6(vii)).

》》 A2.6
》》 A2.5

Action A2.3	• Investigate the different styles of APR in the research centres in the School and the students' perception.
	• Propose a new and uniform APR process for all PGR students in the School. Implementation of the new unified APR for PhD students.
Action A2.5	• An 'Overcoming barriers' fund of £500 p.a. will be established to support PGR students with caring needs, i.e. covering childcare, who wish to attend a major conference.
Action A2.6	• We will introduce a volunteer PhD student/PDRA mentoring scheme across the School.

[Word Count 601]

(v)   Support offered to those applying for research grant applications

   Comment and reflect on support given to staff who apply for funding and what support is offered to those who are unsuccessful.

Staff can find available grant calls in the monthly funding bulletins prepared by the School and by the EPS Faculty. The School organises training delivered by representatives of research councils and other funding bodies. QUB offers a wide level of support: the financial office assists with costing the proposal; the Research and Enterprise Unit assists with all aspects in the preparation of the grant including feedback on the proposal and facilitating a mock interview if needed. Additionally, within the School, DRs and senior colleagues act as critical friends and provide feedback before the application. Support in the School, including to unsuccessful

"The School's Support in the preparation of grants has been extremely useful."
Anonymous Academic

⫸ A4.4

applicants, comes from the PDR reviewer and from other senior colleagues. However, our last School's survey revealed that only 40% of female academics rated the support for grant applications good or very good (34% males). This indicates that a stronger awareness of existing support is still needed, especially for recently appointed staff.

Action A4.4	• DRs to nominate a critical friend in the research cluster to provide feedback during the preparation of a grant proposal and to provide further advice (for example on resubmission) if the proposal is not successful. • DRs to facilitate mock interviews in the School for staff selected for a funding interview for a grant/Fellowship to be hosted in the School.

[Word Count 167]

[Word Count Sec. 5.3: 1714]

5.4. Career development: professional and support staff

(i) Training

Describe the training available to staff at all levels in the department. Provide details of uptake by gender and how existing staff are kept up to date with training. How is its effectiveness monitored and developed in response to levels of uptake and evaluation?

PSS training has always been a School's priority. Line managers continuously encourage their staff to avail of the different training opportunities offered by the School. A second important stream for training will be through the National Technician Commitment, which the University has signed up to, offering the opportunity for technicians to undertake professional registration. For example, one male PSS is currently completing a Leadership Course. All of these opportunities constitute a key part of the PDR process.

As with academic staff, a variety of different training is available to PSS. The School Manager encourages all staff to avail of all QUB training courses, including those online, e.g. the recently introduced LinkedIn training. When possible, staff are given time off work to attend internal QUB courses as these are highly beneficial for both their personal development and the School.

»» A4.7

The School allocates an annual budget (£4,650 in 2019/20) for external training for PSS. Line managers can highlight training needs and costs in their areas and make recommendations to the School Operations Board.
Examples of training include PAT certification, Open University, forklift training. These activities are in response to comments of the School's survey (see quote) and will be expanded in the future.

»» A4.7

Action A4.7	• A yearly budget (£5K) will be allocated to support PSS training opportunities. Suitable training will be identified by PSS and discussed with their line manager.
	• Review annual uptake of non-compulsory training and identify any gender gap.

[Word Count 219]

(ii) Appraisal/development review

Describe current appraisal/development review schemes for professional and support staff at all levels and provide data on uptake by gender. Provide details of any appraisal/review training offered and the uptake of this, as well as staff feedback about the process.

Same as in 5.3(ii).

[Word Count 4]

(iii) Support given to professional and support staff for career progression

Comment and reflect on support given to professional and support staff to assist in their career progression.

The School Manager annually reviews the operational structure of the School and advocates the rotation of core clerical support roles. This should ensure that staff are more resilient, flexible and agile in supporting the needs of the School. But importantly, it equips staff with better skills and knowledge and is core to their professional development.

»» A4.6

Additionally, PSS can avail of 'Acting up' opportunities, Sec.5.2(ii). These activities have led to 5 of our PSS regraded to a higher Grade in our School or within QUB (2 men, 3 women).

Action A4.6	• Line managers to encourage female staff to attend training specific to leadership roles and nominate them to chair or co-chair committees in the School or in the University.
	• Ensure that School vacancies of significant administration roles are advertised by email to all Staff and that applications from female staff members are particularly encouraged.
	• Identify PSS for 'Acting Up' opportunities; support them in the new role; revise avenues for permanent regrading or movement within the School/University.

[Word Count 88]

[Word Count Sec. 5.4: 311]

5.5. Flexible working and managing career breaks

Note: Present professional and support staff and academic staff data separately

(i)   Cover and support for maternity and adoption leave: before leave

Explain what support the department offers to staff before they go on maternity and adoption leave.

The School advertises the up to date University-wide policies. All policies and procedures related to maternity, adoption, paternity and parental leaves are available on the School's AS/GE website, including the 'Maternity Leave Guidance for Line Managers'. Staff are entitled to paid absence to attend antenatal or pre-adoptive appointments. We encourage pregnant staff members to take rest and lunch breaks and advertise recent University's resources including:

- A temporary parking place for female staff in their last trimester of pregnancy (or earlier if a medical condition is identified), which was already used last year by one staff member.
- Access to ten 'Breastfeeding Welcome Here' facilities distributed across University, with two of them within walking distance from the School and two pumping rooms equipped with fridges.

Moreover, the School can apply for University funds to cover duties during leave. In the reporting period, used to provide cover for 3 of our female staff members.

Our latest School's survey indicates that staff do not rate favourably the "available information/facilities and/or support in terms of possible career breaks, maternity/paternity leave, adoption leave etc." with PDRA rating on average 3.4/5, Academics 3.1/5 and Support and Technical Staff 3.1/5. We will endeavour to improve this situation by providing information in readily accessible internal webpages.

⟫ A5.5

Action A5.5	• Keep information on leave and career breaks up to date on the School's website. Share information through the School's newsletter and at School Board meetings where all staff are invited.
	• Promotion of policies in induction days and welcome packs. Promotion of work-life balance and wellbeing guidelines during the 'PhD and Postdoc Career Day'.
	• HOS to meet with staff taking parental leave before and after leave, to review current working arrangements and terms of returning to work.

[Word Count 207]

(ii)   Cover and support for maternity and adoption leave: during leave

Explain what support the department offers to staff during maternity and adoption leave.

The School follows University's policies.

Moreover, for researchers, provision for replacement funding (either to fund a replacement person or to extend the research grant for a commensurate period) is determined by each funder's rules. Most funders, however, do not provide any additional funding for replacements.

QUB offers a 'Maternity Cover Fund' to ensure that the essential work of all members of staff who take maternity leave is covered so that they can enjoy anxiety-free maternity leave. The School has already taken this up at least once, working with the University (and funding body) to support and extend a female PDRA contract for a few months.

[Word Count 105]

(iii)   Cover and support for maternity and adoption leave: returning to work

Explain what support the department offers to staff on return from maternity or adoption leave. Comment on any funding provided to support returning staff.

The School has a policy, introduced with the previous **AP**, that academic staff returning from maternity leave have a 6-month period with no teaching and admin responsibilities. This eases their workload and enables staff to catch up on research. This is discussed between the relevant ADE, line manager, and the returner (Case Study 1).

IMPACT

Additional actions will be put in place.

» A5.6

Action A5.6	• We will work with People and Culture (HR)/Finance to explore how to set up a funding scheme in the School to support staff with care responsibilities to cover costs for childcare to enable working parents to attend major conferences and other external commitments.

[Word Count 61]

(iv)   Maternity return rate

Provide data and comment on the maternity return rate in the department. Data of staff whose contracts are not renewed while on maternity leave should be included in the section along with commentary.

Table 5.5.1 shows the maternity leaves in the last 5 years all with 100% return and all academic staff availed from the 6 months School's policy. All staff have remained in post 6, 12 and 18 months after returning from maternity leave.

Table 5.5.1 Maternity leaves and returns rate for research, academic and professional staff.

[Word Count 42]

(v)   Paternity, shared parental, adoption, and parental leave uptake

Provide data and comment on the uptake of these types of leave by gender and grade. Comment on what the department does to promote and encourage take-up of paternity leave and shared parental leave.

Table 5.5.2 presents School's data for family-friendly applications for various leaves. In the last 5 years all applications have been approved. We will continue advertising the opportunity to request these types of leaves.

》》 **A5.5**

Table 5.5.2 Family-friendly applications (all approved) for research, academic and professional staff.

Action A5.5	• Keep information on leave and career breaks up to date on the School's website. Share information through the School's newsletter and at School Board meetings where all staff are invited.
	• Promotion of policies in induction days and welcome packs. Promotion of work-life balance and wellbeing guidelines during the 'PhD and Postdoc Career Day'.
	• HOS to meet with staff taking parental leave before and after leave, to review current working arrangements and terms of returning to work.

[Word Count 148]

(vi)   Flexible working

Provide information on the flexible working arrangements available.

There are formal procedures through which people can request flexible and part-time working. However, there are a low number of requests, most likely due to the longstanding informal culture, not a policy, that enables Academic and Research staff to work flexibly (Table 5.5.3).

This culture is well advertised, and in the 2019 School's survey, more than 90% of all PDRAs and male academic staff reported that they had flexibility in the hours they worked. However, only 57% (down from 83% in 2018) female academics and 65% of all PSS responded positively to this question. The latter lower response is related to the administrative or technical nature of the job compared to an academic one. However, for PSS there is a more structured scheme to facilitate flexible working. This includes condensed hours (working a full week in a shorter period) and different term-time/vacation time work patterns. The policy is regularly advertised, and we will review its awareness.

"Being part-time has helped me to have a good work-life balance and the School has supported this in allowing me to be flexible in the days I work"
Anonymous PSS

The reason for the low score for female academics is not clear. We will investigate this further, organising focus group sessions with female academics to understand the origin of the discrepancy with their male colleagues.

》》 A5.2

Table 5.5.3 Uptake numbers of flexible working for research, academic and professional staff. All Applications have been approved. Remove table and aggregate

The School's survey revealed that 12/32 respondents, with no evident gender bias, among PGR, PDRA, PSS and academics, who indicated that they had long-term caring responsibilities, did not feel that they received adequate support. Due to small-number statistics, the responses to these questions cannot be split further in order to avoid potential disclosure of sensitive information. In response to these findings we have updated paper bookmarks bearing links to pertinent work-life balance information and contact points for help which are distributed to all School's members (Fig. 5.5.1). Moreover, the AS/GE School's website contains useful links on staff and students' wellbeing and family-friendly guidance.

》》 **A5.5**

》》 **A5.7**
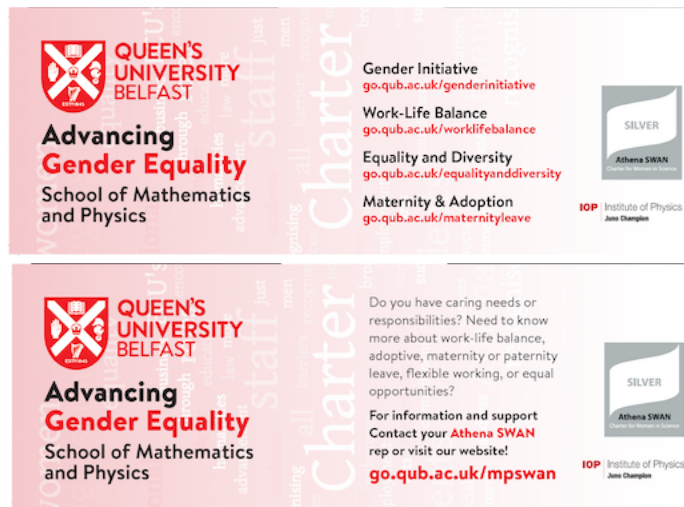
Figure 5.5.1: Paper bookmarks promoting aspects of work-life balance/family friendly information produced by the School. These are distributed to all staff (academic, clerical, technical), researchers, and PGR students.

Action A5.2	• Organise staff focus groups to increase all staff engagement and propose improvements to the School's culture and environment.
Action A5.5	• Update and distribute Athena SWAN and IOP Juno bookmarks for all School's members.
Action A5.7	• We will advertise opportunities for all staff to take flexible working arrangements in the School's website, by distributing updated paper bookmarks (see Fig. 5.5.1), through the monthly E-Zine, including relevant text in job adverts.

[Word Count 324]

(vii) Transition from part-time back to full-time work after career breaks

Outline what policy and practice exists to support and enable staff who work part-time after a career break to transition back to full-time roles.

The School follows the University's guidelines regarding career breaks. Staff can transfer automatically to full-time once their agreed part-time period ends, or alternatively can apply to extend their arrangement.

We have not had any request from staff to transfer from part-time to full-time.

[Word Count 43]

[Word Count Sec. 5.5: 930]

5.6. Organisation and culture

(i) Culture

Demonstrate how the department actively considers gender equality and inclusivity. Provide details of how the Athena SWAN Charter principles have been, and will continue to be, embedded into the culture and workings of the department.

The School is committed to maintain a strong culture that ensures inclusiveness and support of women. The SAT has a central role in bringing forward and implementing the principles of AS and Juno thanks to its direct links with the main decision-making committees in the School.

≫ **A5.11**

According to the School's survey, awareness of the AS and Juno activities in the School increased from 74% of women (77% of men) in 2018 to 83% for both genders in 2019. Moreover, 100% of PDRAs agree (or strongly agree) that their Line Manager values their contribution. In contrast, for all PSS this is only 58% with culture and environment being perceived less favourably; specific issues have been brought up to the School Manager and HOS through the School's survey. We will address this in the **AP**. Academics answered more favourably to the same question, with 73% men and 84% women (without any "strongly disagree" response).

IMPACT

≫ **A5.2**

In collaboration with the SAT, the School organises 'School breakfasts' (Fig.5.6.1) for all staff in conjunction with events like 'International Men's day' or in aid of 'Action Cancer UK'. Additionally, the HOS, the School Manager and all staff maintain an open-door policy. Importantly, the last survey confirmed that staff and PGR students are actively discouraged from working long hours, and meetings are held within core hours.

IMPACT

Figure 5.6.1: Picture from one of the 'School Breakfast' in 2019. The AS Champion in the back talking about Athena SWAN activities and priorities.

Consideration of GE extends to students: representatives from the UG, PGT and PGR bodies are part of the SAT and, whenever possible, female representatives are sought in UG students' committees. We will continue to promote GE and diversity awareness at undergraduate level. The School shares good news, e.g. prizes, promotions, new members, PGRs that passed their *vivas*, through emails or the monthly E-zine and through a screen at the main building reception.

≫ **A5.8**

IMPACT

For the first time, in 2019, the School organised a 'Clerical Support Away Day and Team Building Event', held at the Belfast Cookery School, funded via an annual training budget. We will investigate the impact of these activities on the School's culture and environment.

≫ **A5.2**

Recognition and reward are very important, as they help creating a culture of positive reinforcement at the School and cementing staff dedication. In 2018/19, the School

Computing Support Officers (3 men) received the 'Team Performance Award' while the CDT Manager (female) received the 'Individual Performance Award', both awards consisting in a one-off salary increase. In 2019/20, the School Finance Team (2 women and 1 men) received the University-wide 'Performance Award: Team'. In addition, in 2019/20, a female PSS was nominated and shortlisted for the Vice-Chancellor Research Professional Support Prize. The School, after nominations by Line Managers, assigns 'Recognition Awards' to all staff consisting of vouchers of £10, £25 or £50. In 2018/19, we have allocated 41 awards (Fig.5.6.2).
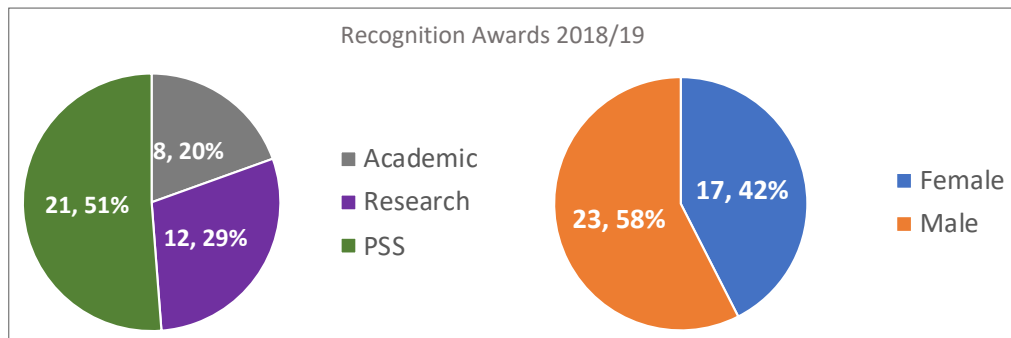
Figure 5.6.2: Left: Number and percentages of 'Recognition Awards assigned' in 2018/19 for Academic, Research, Professional and Support Staff. Right: the corresponding gender distribution.

Action A5.2	• Organise staff focus groups to increase all staff engagement and propose improvements to the School's culture and environment.
	• The impact of PSS activities to promote a healthy environment, for example the 'Clerical Support Away Day', will be investigated through the School's survey.
	• We will prepare a 'You said it! We did it!' report to disseminate the School's survey results and actions that resulted from this.
Action A5.8	• Review the content of the presentation on Gender Equality in all students' induction days.
	• Organise a Gender Equality focused activity for UG and PGR students during the Development weeks.
Action A5.11	• Organise a Q&A coffee session entitled 'Ask me anything' during which the members of the SMB answers questions by all staff in the School.

[Word Count 452]

Describe how the department monitors the consistency in application of HR policies for equality, dignity at work, bullying, harassment, grievance and disciplinary processes. Describe actions taken to address any identified differences between policy and practice. Comment on how the department ensures staff with management responsibilities are kept informed and updated on HR polices.

P&C/HR policies can be found in the Staff Handbook, part of the welcome pack given to new staff and sent annually to all staff. Recently, the School Manager has prepared and disseminated a 'Good Communication Policy' to ensure effective communication among staff which will help stimulate even stronger working relationships and outcomes. The document integrates central policies, e.g. the University Data Protection Policy, Equality and Diversity Policy, Bullying and Harassment Policy and Grievance Procedure.

The University offers training on Bullying and Harassment and we encourage all our staff to avail of such training. Moreover, the University has recently launched the 'Bullying and Harassment Advisor Network' consisting of academics and PSS from across all University that are available for discussing matters related to bullying and harassment and for signposting information available on procedures. Currently, one member of the SAT is part of this network. We will encourage our staff to volunteer for the network and aim to always have at least one Advisor from the School.

IMPACT

⟫ **A5.4**

In response to an issue emerged from a focus group with PGR students regarding professional misconduct, mental-health, wellbeing, work-life balance, bullying and harassment, the SAT in collaboration with P&C/HR will launch the 'Safe Harbour' initiative (Fig.5.6.3). This consists of four School's academics: 2 women and 2 men; 2 from Maths and 2 from Physics. They were nominated by a consultation with the PGR students. The remit of the 'Safe Harbours' will be to allow PGR students, research and academics to raise concerns about their work environment outside of the existing line-management structure. In the long term, it is hoped that the service can be extended to PSS, who can, nevertheless, benefit from central services mentioned above.

⟫ **A5.4**

SAFE HARBOUR

Role: listen to concerns and signpost university procedures, policies and services.

Areas: Bullying & Harassment, Professional (mis)conduct, mental health & Wellbeing, Work-Life balance.

Figure 5.6.3: The Safe-Harbours scheme: their role and areas of remit.

Action A5.4	• Remind UG and PGT students of the newly introduced QUB's 'Report and Support' facility.
	• Ensure that at least one a School's staff member is an Anti-Harassment Advisor, and member of the University 'Bullying and Harassment Advisor Network'. The SAT will liaise with them to receive updates from the Network and feedback issues from the School.
	• Launch the 'Safe Harbour' within the School. This will serve as a beacon activity to share as good practice with other departments and institutions.

[Word Count 281]

(iii)   Representation of men and women on committees

Provide data for all department committees broken down by gender and staff type. Identify the most influential committees. Explain how potential committee members are identified and comment on any consideration given to gender equality in the selection of representatives and what the department is doing to address any gender imbalances. Comment on how the issue of 'committee overload' is addressed where there are small numbers of women or men.

The number of women and men on School's committees is reported in Fig.5.6.4 and Table 5.6.1. Female representation is comparable to the female staff fraction.
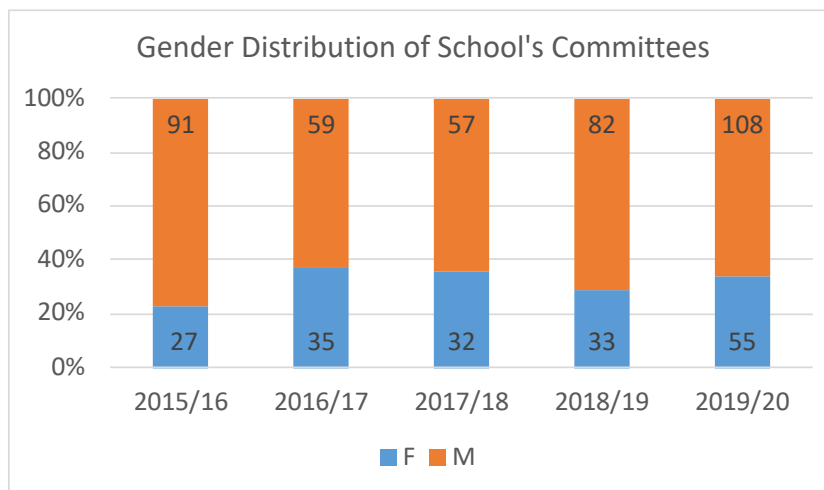
Figure 5.6.4: Percentages of men and women in School's committees. Full data in Table 5.6.1.

The most influential committee is the School Management Board (SMB) in which female participation has increased to 20% in recent years. In the Finance, Research and Staffing committee the female fraction has increased from 27% to 44% in the last year, including a new female DR.

IMPACT

In contrast, of the committees reported in Table 5.6.1, only one is chaired by a woman. Potential committee members volunteer themselves when there is a vacancy advertised or they are identified by the HOS, DE, ADEs and DRs considering the individuals' workload. While we aspire to have substantial female representation in committees, we are also aware that the relatively small number of female staff members means they risk becoming overloaded with commitments, e.g. interview panels, Faculty and University committees.

A4.5

A4.6

Some positions, e.g. committee chairs, are advertised for appointment and staff, especially female ones, are encouraged to apply. Leadership positions, for example HOS, DE, ADEs and DRs, are fixed term positions that can be potentially renewed. This ensures role rotation in the School opening leadership positions to early-career staff. We will extend this policy to the SAT Chairs (Sec.3).

A5.10

School's Committee	2015/16 M	F	2016/17 M	F	2017/18 M	F	2018/19 M	F	2019/20 M	F
Management Board	6 86%	1 14%	6 86%	1 14%	7 78%	2 22%	7 78%	2 22%	6 75%	2 25%
Finance, Research and Staffing	did not exist						11 73%	4 27%	9 56%	7 44%
Postgraduate Research	13 81%	3 19%	9 53%	8 47%	8 62%	5 38%	11 79%	3 21%	9 60%	6 20%
SAT	13 54%	11 46%	13 48%	14 52%	8 36%	14 64%	12 48%	13 52%	13 45%	16 55%
Education	16 76%	5 24%	8 62%	5 28%	10 71%	4 19%	15 83%	3 17%	20 80%	5 20%
Outreach & Recruitment	10 83%	3 23%	meetings not convened						14 67%	7 23%
Disability	7 78%	2 22%	7 78%	2 22%	7 78%	2 22%	9 75%	3 25%	8 73%	3 17%
Exceptional Circumstances	8 89%	1 11%	8 73%	3 17%	8 73%	3 17%	9 75%	3 15%	10 83%	2 17%
Safety	8 100%	0 0%	meetings not convened						10 71%	4 29%
Promotions Panel	10 91%	1 9%	8 80%	2 20%	9 82%	2 18%	8 80%	2 20%	9 75%	3 25%

Table 5.6.1 Gender breakdown of School's committees and corresponding percentages.

Action A4.5	• Record the number of committees per year that our female staff take part.
	• Invite external female panel members where relevant e.g. representation from professional bodies or from another School in EPS.
Action A4.6	• Line managers to encourage female staff to attend training specific of leadership roles and nominate them to chair or co-chair committees in the School or in the University.
	• Ensure that School's vacancies of significant administration roles are advertised by email to all Staff and that applications from female staff members are particularly encouraged.
Action A5.10	• The SAT Chairs will normally hold the role for 3 years and remain in the SAT for at least an additional year to ensure continuity to the next SAT Chairs.

[Word Count 242]

(iv)   Participation on influential external committees

How are staff encouraged to participate in other influential external committees and what procedures are in place to encourage women (or men if they are underrepresented) to participate in these committees?

Most of our academic staff are members of external committees including funding selection panels, advisory boards, editorial boards and subject specific committees. All staff, especially women, are encouraged or nominated by their line manager to become members of influential committees. This is an important aspect of career development and is an aspect of the academic profiles. Line managers will continue encouraging staff members to volunteer or nominate themselves for membership of influential committees as well as writing strong letters of support.

»» A4.6

Action A4.6	• Line managers to discuss with all staff, especially female ones, to volunteer or nominate themselves for membership of external committees.

[Word Count 81]

(v)   Workload model

Describe any workload allocation model in place and what it includes. Comment on ways in which the model is monitored for gender bias and whether it is taken into account at appraisal/development review and in promotion criteria. Comment on the rotation of responsibilities and if staff consider the model to be transparent and fair.

Following our previous **AP**, a new version of the Workload Allocation Model (WAM) was released in 2018 and collects data regarding workload in research, teaching and administration duties. As such, it is more a workload monitoring tool, but inconsistencies in research time allocation need to be addressed. While the allocation of 'days' for all roles and duties are known to everybody, ensuring transparency, individual data are kept private.
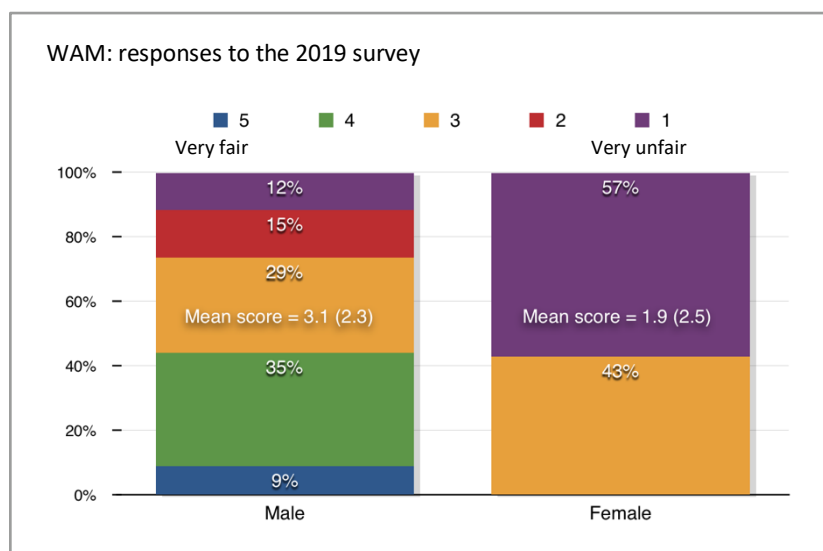
Figure 5.6.5: Responses among academics to the 2019 survey question: "How fair do you think the Work Allocation Model (WAM) is? 1=Very Unfair… 5=Very Fair". Mean score in bracket from 2018.

Results from the School's survey, Fig.5.6.5, show that most of the academics find the WAM unfair with lower scores from women. The HOS is currently preparing a new version of the WAM following ongoing discussions with the DR and the SAT Chairs. The University has created a focus group developing a University-wide WAM. We will monitor the perception of the updated WAM through the annual survey as well as the load allocation according to gender.

» **A4.1**

» **A4.5**

Action A4.1	• The HOS in conjunction with the SAT will develop a new homogenised WAM that fairly reflects the core business and duties of academic staff within the School.
	• Academic representatives of the School will contribute to the University group developing a new University-wide WAM.
Action A4.5	• Line managers (HOS, DE and DRs) will monitor regularly staff workload through PDR and WAM to identify possible issues.

[Word Count 143]

(vi)   Timing of departmental meetings and social gatherings

Describe the consideration given to those with caring responsibilities and part-time staff around the timing of departmental meetings and social gatherings.

The School's core meeting hours are in line with University: 10am to 4pm, with 100% compliance. The chairs of committees circulate potential meeting times and dates, and

those with family responsibilities can have these taken into account in order to maximise attendance. Meetings scheduled at lunchtimes, e.g. the SMB, allowing attendance of staff working either only mornings or afternoons, have School-funded lunches provided.

Social events tend to occur either at lunchtimes, or early evenings when staff are welcome to bring family members along. Social events organised by PhDs and PDRAs are arranged to suit their own schedules taking into account caring responsibilities. This guarantees an all-inclusive social calendar and opportunities for networking.

[Word Count 112]

(vii) Visibility of role models

Describe how the institution builds gender equality into organisation of events. Comment on the gender balance of speakers and chairpersons in seminars, workshops and other relevant activities. Comment on publicity materials, including the department's website and images used.

The School is strongly committed to the promotion of female role models:
- The School's website showcases exemplary researchers, including two female and three male academics.
- Courses marketing material use gender balanced images (Fig.4.1.7).

Fig.5.6.6 shows that the number of invited female speakers throughout the School has recently increased to 33%. This represents a significant increase above the fraction of female academics of the School and has contributed to the increase of female PGRs.

"The female academics in the School have been an inspiration to me in my career throughout my undergraduate and postgraduate degrees, both through their encouragements to me personally and through the example that they set. They show that women have something to offer academia, not in spite of but because of our different perspectives."
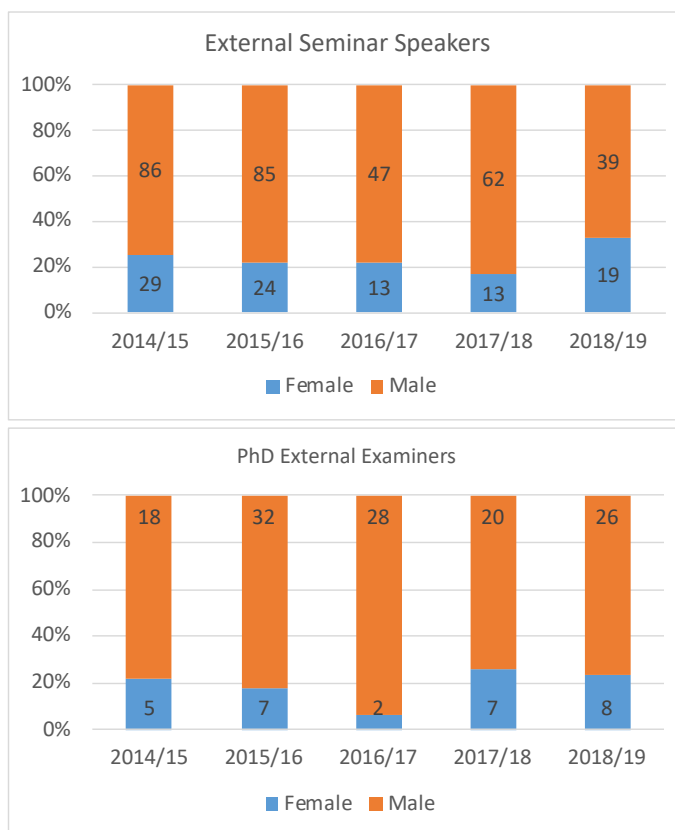*Anonymous female PhD*

IMPACT

Figure 5.6.6: Top: Number of female and male seminar speakers in the School. Bottom: fraction of female external examiners for PhD students (absolute numbers inside the bars).

We have worked on increasing the visibility of female role models in the School; our previous **AP** encouraged PhD supervisors to appoint female academics as external examiners. As a result, absolute numbers and the fraction of female PhD Examiners have both increased significantly (Fig.5.6.6), a result which we want to improve. This provides **impact** on several fronts: i) female academics appointed as external examiners at other institutions show leadership and prestige in their track record and may increase their chances for academic progression, ii) female external examiners often act as role models for the candidates and iii) external examiners often deliver a seminar and engage in research discussions during their visit, directly benefiting the School's community.

In Physics, in the period 2014-2019, a 50% female ratio of UG external examiners was achieved. In Maths, there are currently no female external examiners.

A1.8

Regarding organisation of events, following our previous **AP**, the School adopts a policy that all conferences/workshops hosted/organized by the School should have a nominated organiser in charge of inclusivity and diversity.

In addition to the current 3 annual lectures nominated after men, the School will dedicate an annual lecture to a woman.

A5.1

The School has a dedicated AS cabinet in the teaching centre which displays the previous AS and Juno awards and photos of our female academics along with short biographies.

We will further increase the visibility of female role models in the School's buildings by adding portraits of female scientists in corridors, seminar rooms and the Boardroom. There, we recently hung the portrait of Prof., (Fig.5.6.7),

In 2016, the School partnered with QGI and commissioned a portrait of Prof. , (Fig.5.6.7), a former academic of the School, which was installed in the Great Hall at Queen's. During the International Women's day in March 2020, Prof. came to give a talk on her career, and we presented her with a copy of the portrait. Another copy will be installed in the Boardroom.

The School's website includes the GE page, containing the AS and Juno principles, the role of the SAT, a recent photograph of the team (Fig.5.6.8). It also includes useful links to information on gender initiatives, wellbeing, professional misconduct, bullying and harassment, family-friendly policies, fellowships for women or for people with care responsibilities.

Figure 5.6.8: Top: The image of one of our graduates used as the welcome picture of the SAT webpage in our School. Bottom: A Christmas picture of our SAT.

Action A1.8	• Double the invitations sent to female candidates to be appointed as external examiners and monitor replies.
Action A5.1	• Increase the number of images (portraits, photographs) of female graduate/scientists in the School's buildings and in the School's website/social media.
	• Where relevant, include biographical information of female scientists related to topics in UG/PGT modules. Examples include Emmy Noether, Marie Curie, Ada Lovelace, Mary Somerville, Jocelyn Bell Burnell.
	• Establish an annual lecture dedicated to a woman with connections to the School.

[Word Count 525]

(viii) Outreach activities

Provide data on the staff and students from the department involved in outreach and engagement activities by gender and grade. How is staff and student contribution to outreach and engagement activities formally recognised? Comment on the participant uptake of these activities by gender.

The School has an intense outreach programme (Fig. 5.6.9 and Table 5.6.2) with a gender balanced representation of academic staff, PGRs and UGs. This is especially important for talks given by academic staff and for interviews at UCAS days. The main outreach event dedicated to girls only is 'Girls in Maths', first held in 2019, with very positive feedback. The second edition, sponsored by a grant obtained from the London Mathematical Society, was to take place in April 2020– this is currently postponed due to the pandemic.

Has coming to this event made you feel differently about maths?
"Yes, just because I am a girl, doesn't mean I can't have a career in maths."

Answer from the anonymous feedback form for 'Girls in Maths 2019'

IMPACT

》》 A1.1

Students participating in outreach events are paid as demonstrators with an hourly rate. These activities contribute to obtaining a 'Degree Plus', a QUB certification of extra-curricular activities. For academics that are members of the Outreach committee, participation in outreach events is recognised explicitly in the WAM. For all others, it is part of a sundry administration allocation. Engagement in outreach is also recognised in the PDR, for confirmation in post and for career progression, being part of the 'Teaching and Learning' section of the Academic Profiles. An outstanding contribution in outreach can be considered for a salary enhancement. Students and staff helping in outreach events also receive 'Recognition Awards' described in Sec.5.6(i).

The list of secondary schools invited to our outreach events include schools in NI and a few from the Republic of Ireland and Great Britain. We treat all schools equally without distinction based on private/public, religion, grammar etc. This ensures that we engage with all prospective students regardless of their background.

		Attendees				Staff and students			
Event	Year	M	F	%F	Total	M	F	%F	Total
Girls in Maths	2019	0	38	100%	38				
Mathsweek Ireland	2016	82	105	56%	187				0
	2017	67	80	54%	147				0
	2018	47	55	54%	102	9	7	44%	16
	2019	80	82	51%	162	9	3	25%	12
Maths Quiz	2017	28	20	42%	48				0
	2018	45	23	34%	68	7	3	30%	10
	2019	71	25	26%	96	7	2	22%	9
Maths Royal Statistical Society Lecture	2018	31	28	47%	59				0
	2019	23	29	56%	52				0
Maths UCAS Days	2017	67	53	44%	120	28	6	18%	34
	2018	68	43	39%	111	20	9	41%	29
	2019	70	24	26%	94	24	17	50%	41
Royal Institution Maths Masterclass	2019	27	24	47%	51	5	5	50%	10
Portrush 'Airwaves' Airshow	2018	Public Event >20,000				3	3	50%	6
	2019					4	3	43%	7
Physics UCAS Days	2017	55	27	33%	82				0
	2018	51	23	31%	74	34	5	13%	39
	2019	41	23	36%	64	39	14	26%	53
Physics Tyndall Lecture	2017	82	32	28%	114				0
	2018	131	60	31%	191				0
	2019	51	26	34%	77				0
Physics Work Experience	2017	128	31	19%	159				0
	2018	32	21	40%	53				0
	2019	47	27	36%	74				0
Physics Headstart Summer School	2018	14	20	59%	34				0
	2019	19	16	46%	35				0

Table 5.6.2 Main Outreach activities in the School with number of attendees and facilitators (staff and students).

Figure 5.6.9: Pictures from outreach events in the School.

Action A1.1	• Include Gender Equality talks at UCAS/Open days in the School.
	• Involve our female UG students to participate alongside our academic staff in schools' visits and regional career fairs promoting Maths and Physics at QUB.
	• Organise presentations which include Gender Equality activities in the School, alongside the Faculty spring event for A-Level undecided offer-holder applicants, to encourage them to put Maths and Physics at Queen's as their first UCAS choice.
	• Revise UCAS applications, offers and acceptance rates.
	• Organise outreach and recruitment events for schoolgirls in our School: increase attendance at our annual 'Girls in Maths' event; introduce new 'Girls in Physics' event.

[Word Count 288]

[Word Count Sec. 5.6: 2123]

[Word Count Sec. 5: 6546/6500]

SILVER APPLICATIONS ONLY

6.   CASE STUDIES: IMPACT ON INDIVIDUALS
Recommended word count: Silver 1000 words

Two individuals working in the department should describe how the department's activities have benefitted them.

The subject of one of these case studies should be a member of the self-assessment team.

The second case study should be related to someone else in the department. More information on case studies is available in the awards handbook.

7. FURTHER INFORMATION

Please comment here on any other elements that are relevant to the application.

New promotion scheme
In 2019/20, the promotion exercise has significantly changed, the main changes being:
- All decisions for promotion to SL are taken by the School's committee, while promotions to Reader and Professor are taken by the Faculty and University Progression committees, respectively;
- To progress, candidates must meet the profile for the current grade and demonstrate trajectory against the core criteria for the next level;
- A new holistic approach: one area of the candidate's profile can compensate others.

Teaching Evaluations
Teaching evaluations are one of the key aspects considered for confirmation in post and promotion for academic staff. We were previously concerned about the effects of UB in the evaluations and women were consistently rated lower than men in both subjects. Our data (Fig.7.1) show a net increase in the evaluation scores for female academics in both Maths and Physics in the last 4 years. This great success is the **impact** from a combination of factors: mentoring of newly appointed female lecturers and deployment of UB awareness talks during student inductions.

IMPACT
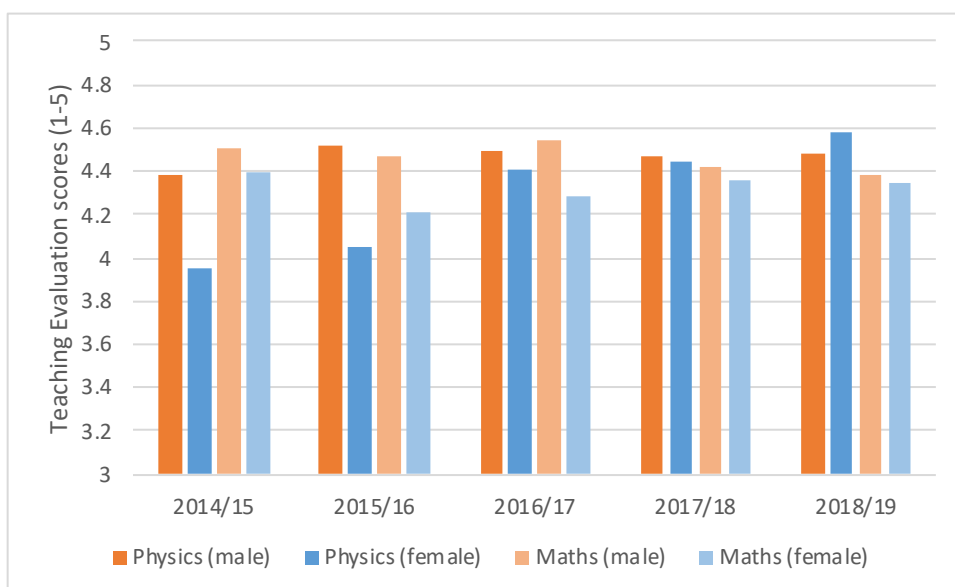
Figure 7.1: Average teaching evaluation scores (TEQ) by UG students of Maths and Physics lecturing staff.

Reasons for studying Maths and Physics
A recent School's survey showed that, among Maths students (all gender), 24% mentioned Maths was their best secondary school subject, 63% liked the subject and 35% were interested in the job prospects (multiple answers allowed). For Physics students, the results were: 3% mentioned that it was their best subject, 64% liked the subject and 46% were interested in the job prospects. The survey, which in the future will include data split according to gender, will be helpful in planning recruitment

strategies, especially MSci students, and placement opportunities with specific employers.

Action A1.6	• Hold yearly focus groups and surveys with Maths and Physics UG students to investigate strategies to attract more students, especially female students, into the MSci programmes.

[Word Count Sec.7 267]

Impact of COVID-19 (recommended word count: 500 words).

During the completion of this document, the spread of Covid-19 has led to a general lockdown in the UK. The University is closed to all students and staff, with the exception of core workers and some researchers. This has been a very challenging time, in which we have had to adapt our work environment and learn new tools for smart working in a very short time, especially in order to deliver online teaching and assessment.

Where possible, School activities are being carried out remotely, or have been postponed. Our SAT is conducting its activities online taking a flexible approach and will continue to do for as long as is necessary. Meetings are held using teleconferencing tools at times that are convenient for most members. As we realise that those with caring responsibilities have less flexibility, offline discussions are conducted when meetings are not possible.

The School has recently established the `Operational Recovery Working Group`, whose membership includes Chairs of all operational and teaching committees of the School, as well as one of the SAT Co-Chairs representing AS and IOP Juno.

While a complete gender impact assessment of the pandemic in the School is not available yet, the SAT is cognisant of areas that may be impacted, including: teaching and assessment; student outreach and recruitment; staff and student well-being; School culture; research and laboratory activities; career progression; staff recruitment and the up-take of flexible working. Relevant actions will be incorporated into the Action Plan in Sec. 8.

[Word Count Section on COVID-19 246]

8. ACTION PLAN

The action plan should present prioritised actions to address the issues identified in this application.

Please present the action plan in the form of a table. For each action define an appropriate success/outcome measure, identify the person/position(s) responsible for the action, and timescales for completion.

The plan should cover current initiatives and your aspirations for the next four years. Actions, and their measures of success, should be Specific, Measurable, Achievable, Relevant and Time-bound (SMART).

See the awards handbook for an example template for an action plan.

LANDSCAPE PAGE

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School of Mathematics and Physics Silver Renewal Action Plan 2020

1. Attracting, supporting and retaining female UG and PGT students in Maths & Physics.				
Issue Identified/Objectives	**Actions planned**	**Measures of success / Targets**	**Responsibility**	**Target date/ Timeframe**
A1.1 Overall objective: Increase by 5% the percentage of girls applying to Maths and Physics undergraduate courses.	Include Gender Equality talks at UCAS/Open days in the School.	Successful implementation.	UCAS days organisers	Annually from October 2020
	Involve our female UG students to participate alongside our academic staff in schools' visits and regional career fairs promoting Maths and Physics at QUB.	At least two female UG students participating in each outreach event.	Outreach and Recruitment	Annually from 2021
	Organise presentations which include Gender Equality activities in the School, alongside the Faculty spring event for A-Level undecided offer-holder applicants, to encourage them to put Maths and Physics at Queen's as their first UCAS choice.	At least one presentation per year; record attendance and satisfaction via a feedback form.	Outreach and Recruitment	Annually from March 2022
	Revise UCAS applications, offers and acceptance rates.	Annual report presented at the SAT and SMB.	Outreach and Recruitment	Annually from 2021
	Organise outreach and recruitment events for schoolgirls in our School: increase attendance at our annual 'Girls in Maths' event; introduce new 'Girls in Physics' event.	More than 50 participants per event per year; overall positive satisfaction rate measured by feedback form.	Outreach and Recruitment	Annually from 2021

A1.2 Ensure a supportive and caring environment for female UG students and increase their interaction with role models.		Extend the PT policy to AOS, allowing students to request an AOS of a gender of their choice.	100% application of the policy; review the uptake of the policy.	DE, AOS	Annually from September 2020
		Ensure that at least one female lecturer teaches at every level, in both Maths and Physics.	Compliance whenever logistically possible.	DEs	Annually from September 2021
A1.3 The School acknowledges the relevance of the unconscious bias (UB) phenomenon in several aspects of academia. To mitigate its effects, our previous Action Plan has successfully increased the awareness of UB. Moreover, to move beyond simple awareness the School plans to implement UB training.	**A1.3a** Make sure that all staff and students are aware of UB.	All staff to pass the UB compulsory university online training. Additionally, offer a yearly refresher awareness session for all staff. Staff to be reminded at every 'School Breakfast' that these are compulsory. HOS to write to each member of staff who does not comply urging them to complete the training.	100% completion. Monitor awareness through the annual survey.	HOS, School Manager	Review annually starting October 2020
	A1.3b The SAT has faced difficulties in identifying suitable UB training for academia as most 'out-of-the-box' solutions are directed to industry.	The UB Lead will research UB trainings including advanced training for academics to act as facilitators of UB awareness activities. The UB Lead will engage with the SENSE Faculty Network to run joint training.	To have at least two staff members (one in Maths and one in Physics) fully trained on UB as demonstrators to facilitate students' training.	UB Lead	2023
		Implementation of UB training for all students.	Successful implementation.	UB Lead	2024
A1.4 The Physics ADE has recently investigated gender differences in student performance and found no evidence of gender bias in awarding Physics degrees in the period 2014-2018.		Extend to Maths the investigation on the attainment of UG students already completed in Physics, identifying emerging GE issues and designing actions in response.	Review the final degree classification of UG students by gender. Present report to the SMB and the School Education Committee for discussion and formulation of future actions if required.	DE, ADEs	Annually from Sept 2021

A1.5 The School is introducing stricter entry requirements for UG programmes. It is vital to investigate how these changes will affect our female students' attainment and progression.	Assess the impact that the stricter entry requirements have by comparing applications, offers and acceptance rates to previous years. Analyse the students' attainment as measured by average marks, passing and retention rates and final degree classifications and compare to previous cohorts.	Report to be presented at SMB and the School Education Committee.	DE, ADEs	Annually from June 2021
A1.6 We observe a low number of Maths MSci students compared to Physics MSci students. This hinders the progression of female mathematicians to higher education and academia.	Hold yearly focus groups and surveys with Maths and Physics UG students to investigate strategies to attract more students, especially female students, into the MSci programmes.	Successful organisation of focus groups and preparation of analysis report.	Maths ADE	2021
	Reinforce advertisement of Maths MSci programmes in the School's website and during UCAS days.	School's website updated.	Maths ADE	October 2020
	Hold yearly meetings where AOS encourage eligible second year students to change pathway to MSci.	Increase number of Maths MSci students by 20%.	AOS	2022
A1.7 Recently**,** we had a lot of success in recruiting female students in the PGT course on Data Analytics. We should exploit this positive trend to attract more female students at the postgraduate level. **Overall objective**: increase by 10% the number of female PGT students by 2024.	Review the uptake and future dropout rates of PGT courses for all genders. PT and AOS to encourage UG students, especially female ones, to consider applying for PGT courses.	Maintain or increase the number of former UG students in the School enrolled in PGT courses.	PGT Coordinators, ADEs, AOS	Annually from September 2020
	Review the marketing material (brochures, leaflets, website) to i) showcase recent female graduates and ii) advertise opportunities to enrol as a part-time PGT student.	Update of marketing material. Number of part-time students.	PGT Coordinators	2022
A1.8 The School recognises the importance of having female external examiners for UG and PGT programmes and will aim to increase the number of female external examiners.	Double the invitations sent to female candidates to be appointed as external examiners and monitor replies.	Achieve gender balance of external examiners for UG and PGT programmes.	DE, ADEs	2024

Issue Identified/Objectives	Actions planned	Measures of success / Targets	Responsibility	Target date/ Timeframe
A1.9 The School plans to increase placement opportunities with employers for UG students and increase their employability.	The School will introduce 1-year placements with employers and actively promote the schemes.	Increase the number of students' placements by 10%. Review the uptake by gender.	DE, ADEs	2021

2. Recruiting Postgraduate Research (PGR) students and supporting their transition to Postdoctoral Researchers (PDRAs)				
Issue Identified/Objectives	**Actions planned**	**Measures of success / Targets**	**Responsibility**	**Target date/ Timeframe**
A2.1 The fraction of female PGR students is smaller than the corresponding UG fraction indicating a possible leaky pipeline.	Prospective supervisors to actively encourage female candidates to apply for PhD projects: i) Review the advertisements description for new PGR projects to include a paragraph on the School's commitment to the Athena SWAN and IOP Juno principles. ii) Research clusters to hold presentations of PhD projects and invite last year MSci students to attend.	Advertising material updated. Increase by 20% the number of female students applying for PGR positions.	DRs, PGR Administrator	Annually from 2021
	Hold a showcase event during the year to present research projects by PhD students. Best female and male presentation to receive a prize.	Successful organisation of an event with positive satisfaction as measured by feedback form and review attendance.	PGR Director	2021
	Display information on current and past female PhD students in the School's website.	Updated School's website.	SAT Chairs	Annually from September 2021
	Final year UG students to meet their AOS or PT to discuss possible career options including PGT or PGR courses.	50% of the final year UG students' population to attend at least one meeting.	ADEs, AOS	Annually from January 2021

A2.2 Emphasize the policies and opportunities to enrol as part-time PGR students.	Highlight opportunities for PGR students to enrol part-time in the relevant adverts and pages of the School's website and increase awareness of work-life balance policies. Advertise SAT driven activities supporting female PGR students (see A2.1-A2.6).	Increase the awareness of the opportunities to enrol as a PGR part-time student as measured by the School's survey.	PGR Director	2024
A2.3 The annual progress review (APR) for PhD students is not uniform across the different research centres in the School, causing confusion and discontent among the students.	Investigate the different styles of APR in the research centres in the School and the students' perception.

Propose a new and uniform APR process for all PGR students in the School.

Implementation of the new unified APR for PhD students. | Report on the different APRs employed in each research cluster.

Proposal to be presented at SMB and PGR Committee.

Increased satisfaction measured by the School's survey. | SAT Chairs

PGR Director

SAT Chairs | 2021

2022

2023 |
| A2.4 We acknowledge the small number of female panel members during PhD *viva* exams, in both Maths and Physics. We recognise the adverse effect a men-only panel can have on female PGR students. | Make sure that *viva* panel members are not all males. If it is not possible to find a female external or internal examiner (e.g. due to expertise and availability), then a female Chair/independent convener will be sought, from other Schools if needed. | Successful implementation of the policy:
At least one panel member must be female.
100% compliance. | PGR Director | 2022 |
| A2.5 PGR Students with caring responsibilities have difficulties attending conferences and workshops during summer due to school closures. | An 'Overcoming barriers' fund of £500 p.a. will be established to support PGR students with caring needs, i.e. covering childcare, who wish to attend a major conference. | Successful implementation: funds secured as part of the SAT budget and the fund advertised. The fund will be reviewed annually. | PGR Director | 2022 |
| A2.6 The scientific and social interaction between PDRAs and PGRs is a key aspect to support the transition from PGR to PDRA. | We will introduce a volunteer PhD student/PDRA mentoring scheme across the School. | Successful implementation. Uptake will be reviewed annually. | SAT Chairs, PGR Rep PDRA rep | 2022 |

3. Recruitment of female staff in Academic and Research positions.				
Issue Identified/Objectives	**Actions planned**	**Measures of success / Targets**	**Responsibility**	**Target date/ Timeframe**
A3.1 The fraction of female academics is lower than the national average. **Overall Objective:** Increase fraction of female research staff to 25%. The fraction of female academic staff to be larger or equal than the HESA national average.	Revise material provided to prospective candidates. Review job descriptions for gendered language. Include text on all adverts to emphasise the School and University's commitment to gender equality alongside Athena SWAN and Juno logos.	100% compliance. New material produced.	HOS, DRs	2023
	Create a check list with gender equality information to be distributed to all the Chairs of recruitment panels.	Check list created and distributed to all academic staff.	SAT Chairs & School Manager	2022
	Ensure that recruitment panels always have female representation, with panellists from Schools in EPS if necessary.	100% compliance.	School Manager	2023
	Line managers and personal development reviewers will encourage female prospective candidates to apply for PDRA and Lecturer positions in the School and elsewhere during their appraisal.	Increase to 25% the fraction of female applicants for research and academic position (see Table 5.1.1).	Line Managers	Annually from 2022
	We will work with People and Culture (HR)/Finance to explore how to set up a childcare cover scheme for prospective interview attendees at QUB.	Impact assessed by take-up numbers and feedback.	SAT Chairs	2024
	The SAT will financially support one PDRA per year to attend training for teaching in Higher Education Institutions, e.g. PGCHET. PDRAs will apply for the support and candidates will be selected by a School's panel based on their previous involvement in teaching activities.	At least one PDRAs to attend the PGCHET course.	SAT Chairs, Postdoc Rep	2024

	This opportunity will be advertised to the School's Postdocs via periodic emails, at the 'Career Day' and during PDRA coffee mornings. Female Postdocs will be particularly encouraged to apply for the financial support.			
	SAT Chairs will send a welcome message to new female PDRAs highlighting the importance of the Athena SWAN principles and presenting gender equality activities in the School and in the University.	100% compliance	SAT Chairs	From September 2020
A3.2 The number of researchers holding a fellowship is low, especially among female researchers.	Each research centre will encourage final year PhDs and PDRAs, especially female researchers, to apply for a research fellowship. Mentors will be assigned to act as critical friends and provide feedback on specific research ideas and grant schemes.	At least one fellowship application in each research division (Maths and Physics) per year.	DRs, Line Managers	2024
	Organise information sessions on Fellowships.	At least one annual session and review attendance and satisfaction by gender.	HOS	2022
	Every 3 months a SAT Chair will attend the 'PDRA coffee morning' to enquire about the general thoughts about fellowship applications and identify interested applicants.	Increase the awareness of Fellowships schemes as measured by the School's survey.	SAT Chairs	Annually from 2021
A3.3 PDRAs and PGRs have suggested the need for specialist, discipline related training courses in the School. More training will strengthen the PDRAs and PGRs profile, increasing their professional competitiveness.	Advertise the QUB's central funding available to organise specialist training during 'PDRA coffee mornings' and through the PDRAs and PGR rep, particularly Line Managers/Supervisors to encourage women to avail of this.	Successful organisation of at least one specialist training per year. Positive satisfaction rate.	DRs, Postdoc reps., Line Manages/Supervisors	2021

	The School will allocate an annual budget for specialist external training. Research and Academic staff will bid to use the funding on a competitive basis. If oversubscribed analyse gender breakdown of successful and unsuccessful applications.	Achieve the same gender balance as the PDRAs population.	SAT Chairs, Postdoc reps	Annually from 2023

4. Career development, promotion, and supporting key transition points for all staff				
Issue Identified/Objectives	**Actions planned**	**Measures of success / Targets**	**Responsibility**	**Target date/ Timeframe**
A4.1 Design of a new Work Allocation Model (WAM) that accounts transparently for duties and responsibilities.	The HOS, in conjunction with the SAT, will develop a new homogenised WAM that fairly reflects the core business and duties of academic staff within the School. Academic representatives of the School will contribute to the University group developing a new University-wide WAM.	Evidence of improved perception of WAM fairness, as measured through the School's survey.	HOS & SAT Chairs	Aug 2021 implementation; surveyed annually from 2022
A4.2 The number of female academic staff at a senior grade is very low. The University has a newly introduced promotion process which needs to commence with a Personal Development Review (PDR). **Overall Objective:** By 2024, the School aims at increasing by at least 2 the number of female academics at AC4 level or above by promotion.	Prompt all academic staff members, especially female academics, who are eligible to apply for promotion, to organise a PDR meeting. Reviewers to initiate a discussion about academic progression with Reviewees eligible for promotion. Ensure that all Reviewers are trained for the new PDR process.	At least 50% of staff eligible for promotion to organise a PDR to discuss promotion. Record of promotion being discussed in the PDR form as evidence. 100% Reviewers trained.	Line Managers HOS, Line Managers	Annually from June 2021 Annually from October 2020

	Encourage academic staff members to participate in University, Faculty and School information sessions for promotion. Encourage female staff to participate in workshops and the QGI Mentoring Scheme.	At least 50% of staff eligible for promotion to participate in at least one training/information session.	HOS, Line Managers	Annually from 2021
	Support female academics by actively nominating them for prizes/awards and encouraging them to apply for funding.	At least one nomination of a female academics per year in each research unit, Maths and Physics.	HOS, DRs, SAT Chairs	Annually from 2021
	Organise informal 'book club'-style meetings to discuss the application process for promotion and analyse applications from former successful applicants.	Successful organisation and satisfaction measured by the School's survey.	SAT Chairs	Annually from 2022
	The SAT Chairs, in collaboration with the QUB SWAN Champions Network, will discuss experiences from each School after the first round of promotions and design actions to improve the new process.	Design of actions regarding promotions.	SAT Chairs	Annually from 2021
	Review annual uptake of non-compulsory training and identify any gender gap.	Report to be discussed at SMB.	SAT Chairs	Annually from 2021
A4.3 The School is committed to support the career development of all staff, especially newly appointed ones, through the new PDR process.	Investigate the quality and uptake of the PDR process especially for those staff members on probation, PSS or those academics eligible to apply for promotion.	PDR uptake numbers. Satisfaction of the PDR measured by the School's survey.	Line Managers SAT Chairs	Annually from 2021
A4.4 The majority of academic staff is not satisfied with the support received for preparing grant applications.	DRs to nominate a critical friend in their research cluster to provide feedback during the preparation of a grant proposal and to provide further advice (for example on resubmission) if the proposal is not successful.	Increase satisfaction of academic staff regarding the support received during the preparation of a proposal, as measured by the School's survey.	DRs	2022

We will introduce additional support in the School for staff preparing funding applications.	DRs to facilitate mock interviews in the School for staff selected for a funding interview for a grant/Fellowship to be hosted in the School.			
A4.5 Gender balance is sought in all School and University's committees, especially interview and probation panels. In spite of this, the School has a low number of female staff, and this could significantly increase their workload.	Record the number of committees per year that our female staff take part. Invite external female panel members where relevant e.g. representation from professional bodies or from another School in EPS. Line managers (HOS, DE and DRs) will monitor regularly staff workload through PDR and WAM to identify possible issues.	Staff perception of workload investigated through the School's survey.	HOS, DE and DRs	2022
A4.6 In order to facilitate career progression, it is important for all staff, especially females, to take on leadership roles.	Line managers to encourage female staff to attend training specific of leadership roles and nominate them to chair or co-chair committees in the School or in the University.	Increase number of female chairs and co-chairs of committees.	Line Managers	2024
Overall objective: Increase the number of leadership roles for female staff.	Line managers to discuss with all staff, especially females, to volunteer or nominate themselves for membership of external committees.	Increase number of female staff in influential external committees.	Line Managers	2022
	Ensure that School's vacancies of significant administration and teaching roles are advertised by email to all Staff and that applications from female staff members are particularly encouraged.	Improve the visibility of roles monitored by the School's survey.	HOS, SAT Chairs	2022
	Identify PSS for 'Acting Up' opportunities; support them in the new role; revise avenues for permanent regrading or movement within the School/University.	Identify at least 2 PSS per year for 'Acting up' opportunities.	HOS & School Manager	2022
	Identify candidates to participate in the Advance-HE Aurora Leadership programme aimed specifically at leadership development for women.	Support at least 2 female staff applications to attend the programme.	HOS, SAT Chairs	Annually from 2020/21

A4.7 The School recognises that PSS should be given access to specialist training opportunities for their career development.	A yearly budget (£5K) will be allocated to support PSS training opportunities. Suitable training will be identified by PSS and discussed with their line manager. Review annual uptake of non-compulsory training and identify any gender gap.	At least 2 PSS to be trained in a specialist course.	School Manager	Annually from 2021
A4.8 In the last 5 years, a significant fraction of permanent staff left the School. While some information is provided by People & Culture (previously, HR), sometimes reasons for this are unclear.	Liaise with People & Culture to review and investigate causes for departures of any permanent staff. Identify anomalies and gender differences.	Better understanding of common causes for academic staff's departures from the School. Increase retention rates.	HOS	2024
A4.9 The School's survey needs to be annually reviewed to keep it relevant and consistent with current issues.	A group of SAT members representing each category (PGR, PDRA, PSS and Academics) will review the questions of the School's survey.	Annual revision approved by SAT.	SAT Chairs	Annually from Sept 2020
A4.10 The University is currently reviewing the career progression mechanism for PSS.	The School will fully commit to the new scheme collecting feedback from PSS.	Implementation and support of the new scheme.	HOS	2024

5. Improve the Culture and Environment within the School of Mathematics and Physics				
Issue Identified/Objectives	**Actions planned**	**Measures of success / Targets**	**Responsibility**	**Target date/ Timeframe**
A5.1 Increase the visibility of female role models across the School.	Increase the number of images (portraits, photographs) of female graduates/scientists in the School's buildings and in the School's website/social media.	More, new images of female scientists placed in high profile/heavy traffic areas as well as in the School's website/social media. Impact through the School's survey.	SAT Chairs, School Manager	2024
	Where relevant, include biographical information of female scientists related to topics in UG/PGT modules. Examples include Emmy Noether, Marie Curie, Ada Lovelace, Mary Somerville, Jocelyn Bell Burnell.	Review the number of cases in which this information is added.	ADEs	2024
	Establish an annual lecture dedicated to a woman with connections to the School.	Successful establishment.	HOS	2023
A5.2 Improve all staff's perception of culture and environment in the School.	Organise staff focus groups to increase all staff engagement and propose improvements to the School's culture and environment. The impact of PSS activities to promote a healthy environment, for example the 'Clerical Support Away Day', will be investigated through the School's survey.	Successful organisation and uptake numbers. Focus groups analysed and report with suggested actions submitted to SMB.	SAT Chairs	2022
	We will prepare a 'You said it! We did it!' report to disseminate the School's survey results and actions that resulted from this. The information will also be distributed on website, E-Zine, *Sharepoint* and during 'School Breakfasts'.	Satisfaction and awareness measured by the annual School's survey.	SAT Chairs	Annually from October 2020

A5.3 The School recognises the importance of Gender Equality activities and that a financial budget is required to support these initiatives.	Annually, review financial projections of activities in support of key gender equality initiatives and related beacon activities. Prepare budget and provide annual report on the use of the funds to the SMB.	Long-term budgetary commitment from School. Preparation of annual financial reports of the Gender Equality Committee/SAT.	HOS, SAT Chairs	Annually from July 2020
A5.4 The School acknowledges the importance of reporting and grievance mechanisms for staff and students, especially in relation to professional (mis)conduct, bullying and harassment.	Remind UG and PGT students of the newly introduced QUB's 'Report and Support' facility.	Awareness measured by an annual survey.	ADEs & AOS	Annually from September 2020
	Ensure that at least one a School's staff member is an Anti-Harassment Advisor, and member of the University 'Bullying and Harassment Advisor Network'. The SAT will liaise with them to receive updates from the Network and feedback issues from the School.	At least one Advisor from the School.	HOS	Annually from September 2020
	Launch the 'Safe Harbour' scheme within the School. This will serve as a beacon activity to share as good practice with other departments and institutions.	Staff involved in the scheme to complete relevant training. Successful launch of the scheme. Uptake numbers. Awareness and satisfaction measured by the School's survey.	HOS/SAT Chairs	Annually from 2021

A5.5 The School's survey indicates that the information on leave and career breaks is not easily accessible on QUB's website. All staff should have ready access to this information.	Keep information on leave and career breaks up to date on the School's website. Share information through the School's newsletter and at School Board meetings where all staff are invited. Update and distribute Athena SWAN and IOP Juno bookmarks for all School's members.	Improvement of responses to the School's survey regarding accessibility of information on leaves and career breaks.	SAT Chairs	Annually from 2021
	Promotion of these policies will be included in induction days and welcome packs. We will promote work-life balance and wellbeing guidelines during the 'PhD and Postdoc Career Day'.	Increase awareness and uptake of policies, measured by the School's survey.	PGR Director SAT Chairs	2023
	HOS to meet with staff taking parental leave before and after leave, to review current working arrangements and terms of returning to work.	Meeting records and follow up actions.	HOS	Annually from Sept 2020
A5.6 Staff with childcare responsibilities often have difficulties attending external conferences or other events.	We will work with People and Culture (HR)/Finance to explore how to set up a funding scheme in the School to support staff with care responsibilities to cover costs for childcare to enable working parents to attend major conferences and other external commitments.	Uptake of numbers. Awareness of the scheme and satisfaction measured by the School's survey.	HOS, SAT Chairs	Annually from 2021
A5.7 Raise the awareness of flexible and part-time working policies.	We will advertise opportunities for all staff to take flexible working arrangements in the School's website, by distributing updated paper bookmarks (see Fig. 5.5.1), through the monthly E-Zine, including relevant text in job adverts (see also A3.1).	Include policies in the relevant resources.	SAT Chairs	Annually from April 2021

A5.8 Increase awareness of Gender Equality and the principles of the Athena SWAN/IOP Juno charters among all students and staff.	A5.8a Students: Review the content of the presentation on Gender Equality in all students' induction days.	Increase awareness of Gender Equality, Athena SWAN and IOP Juno among students.	UB Lead	2023
	Organise a Gender Equality focused activity for UG and PGR students during the Development weeks.	Uptake numbers.	SAT Chairs	Annually from January 2021
	A5.8b Staff: Include Gender Equality in induction packs for all staff. Quarterly, include a summary for the monthly School's newsletter (E-Zine), which is distributed to all staff members, with news, events and opportunities related to Gender Equality.	Increase awareness of Gender Equality, Athena SWAN and IOP Juno measured by the School's survey.	School Manager & SAT Chairs	Annually from September 2020
A5.9 Data analysis is an important aspect of the SAT remit. Statistics need to be constantly updated so that we can take timely interventions.	A member of the SAT will be appointed as the SAT Data Analyst, whose role will be recognised in the WAM, to analyse the School's annual data related to Gender Equality and the survey results. An annual report will be prepared and presented to the SMB.	Successful appointment and update of the Terms of Reference for the SAT to include the role of Data Analyst.	HOS and SAT Chairs	2022
A5.10 The School understands that the implementation of a succession plan for the SAT Chairs is key to ensure the continuity and growth of Gender Equality activities.	The SAT Chairs will normally hold the role for 3 years and remain in the SAT for at least an additional year to ensure continuity to the next SAT Chairs.	Successful implementation.	HOS	2023
A5.11 It is important to maintain an open communication between all staff and their line managers in order to continue strengthening the trust and culture in the School.	Organise a Q&A coffee session entitled 'Ask me anything' during which the members of the SMB answers questions by all staff in the School.	One session per year and review attendance rate.	SMB Members	Annually from 2023