

# The Juno Experience in Physics at Imperial College London

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# **Imperial College London (South Kensington Campus)**



## **Outline**

- The Department of Physics at Imperial
- Juno/Athena SWAN Committee
- Gender balance in Physics at Imperial
- Our action plan
- Summary and concluding remarks

# **The Department of Physics at Imperial**



Academic staff and senior administrative staff, The Department of Physics, Imperial College London

# **The Department of Physics**

- One of the largest physics departments in the UK and the largest nonmedical department at Imperial.
- Department has 127 academic, 40 technical, 34 administrative staff.
- Each year, department admits 240–250 UGs, 200 PGRs and PGTs, and hosts 178 RAs (30 fellowship holders).
- Nine research groups: ASTR, CMTH, EXSS, HEPH, PHOT, PLAS, QOLS, SPAT, and THEO.
- Heads of groups and other holders of key posts make up the HoGs Committee, chaired by HoD, which is the Management Committee of the department.

## **Juno and Athena SWAN in the Department of Physics**

2007: Juno Transparency and Opportunity Committee (the "Juno Committee") formed to implement the Institute of Physics code of practice, and to address the under-representation of women at all level in physics – UG to faculty.

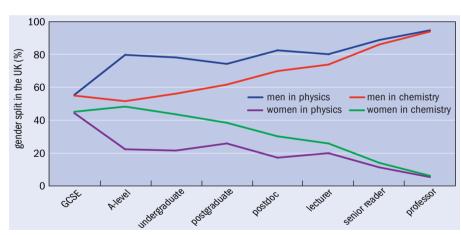
2009: Awarded Juno Champion status

2009: Awarded Athena Silver SWAN

2012: Juno Champion status renewed

2012: Athena Silver SWAN renewed

2015: Athena Silver SWAN renewed



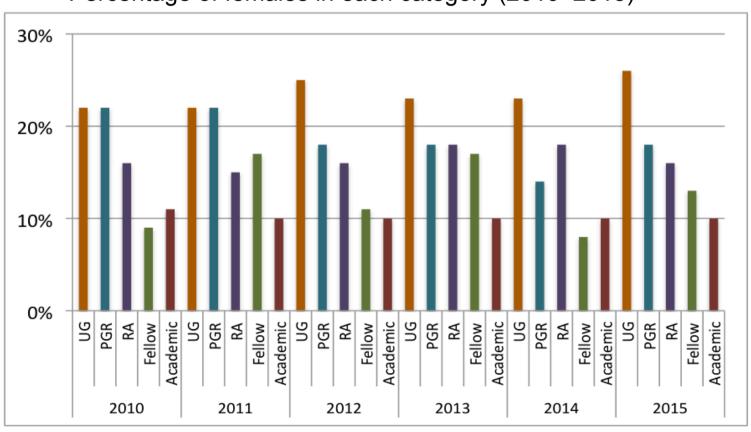
Source: L. F. Cohen, Mending the broken pipe, *Physics World*, April 2012, pp. 16-17.

## **Juno (Transparency and Opportunity) Committee**

- Current committee: 21 members (10 F, 11 M); includes, PDRA (chair of RA committee), ECR (5), teaching fellow (1), academic (9), administrative (2), and technical (2) sectors, and one external member (head of PDDC).
- Committee meetings: monthly throughout the year. Minutes are posted on Juno pages of departmental website.
- Recognition of committee members. Julia Higgins Award to Lesley Cohen (2013-inaugural) and Liz Elvidge (2015); IoP Early Career Physics Communicator Award to Jessica Wade (2015).
- Firmly embedded in the department: (1) ex pfficio members who hold senior positions: HoD, OM, DUGS, UG Admissions Tutor; (2) Juno Chair sits on HoGs Committee; (3) Juno matters are a standing agenda item for HoGs meetings; (4) Regular presentations at staff meetings.

## **Gender Profile**

## Percentage of females in each category (2010–2015)



## **Actiom Plan (Athena-SWAN)**

- 1. Baseline data and supporting evidence
- 2. Key career transitions: Appointments and promotions
- 3. Career development: Advice and support
- 4. Culture, communication, and departmental organization
- 5. Career breaks and flexible working

Each Juno Committee member (except HoD) is a member of one Action Plan subcommittee.

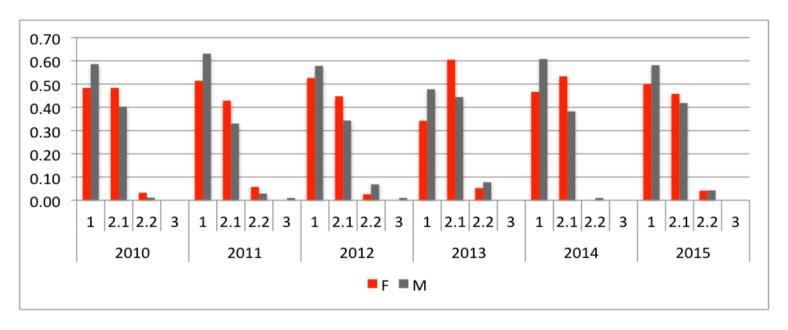
Each subcommittee meets monthly; reports to monthly Juno Committee meetings.

## **Baseline Data and Supporting Evidence**

- Departmental statistics that are required by Athena-SWAN and its successors are compiled annually.
- Report of statistics presented at HoGs and staff meetings.
- Statistics are analyzed to asses impact of actions and to identify areas which need attention.
- In-depth studies of recurrent unfavorable (gender-biased) trends
- Survey of all staff every 3 years.
- Annual survey of final-year students.
- Surveys inform the Juno Committee about the impact of actions and at the individual level and identify any problems that would be difficult toassess otherwise (e.g. bullying and harassment).
- Monitor all appointments and promotions.

## **Under-achievement of females in MSci degree results**

MSci degree results for males and female graduates as percentage of each gender



- Males out-perform females at 1st class, but the reverse occurs at 2.1.
- What is the origin of this persistent effect? Labs? Projects? Courses?
- Compare with other institutions in London and elsewhere.

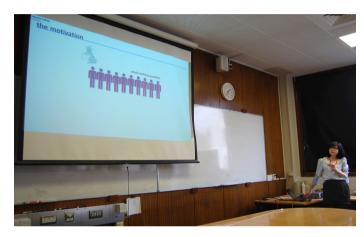
## **Key Career Transitions: Appointments & Promotions**

- Encourage more female applicants for RA positions; encourage more female candidates to approach department to host their application.
- Encourage interactions between UGs and PGs and between PGs and RAs.
   Women in Physics Committee
- Annual fellowship workshop for RAs.
- Feed-back on promotions. All academic staff considered for promotion annually. Candidates for promotion referred to "wise people" panels, who provide feed-back and recommendations.
- Guideline for promotions.

# **Women in Physics (WiP) Events**













# **Recruitment guidelines**

- All research groups to maintain lists of potential female candidates.
- A search committee to be formed to identify a range of suitable candidates for the position, who are then encouraged to apply.
- Juno committee monitors gender statistics of seminars a source of potential (male and female) candidates.
- Positions to be advertised with an open area of research, perhaps with a preference for a particular area, to avoid narrow pools of applicants.
- If it's an open are of research can it also then be in a particular area?
- At least one female on short list.
- At least one female on interview panel.
- Feed-back to unsuccessful candidates (on short0list).

## **Career Development: Advice & Support**

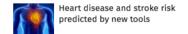
- Maximize use of Personal Review and Development Plan (PRDP) for academics and RAs. For was redesigned in 2014 to focus on interview, rather than achievement.
- Physics Fellows Forum formed to address needs of this community. Founderchair is Juno Committee member.
- RA Committee formed to address the concerns and to develop cohesion within this community. Chair is ex officio member of Juno Committee.
- Monitor take-up of training offered by the Postdoctoral Development Centre.
   The Director is a Juno Committee member.

# **Culture, Communication & Departmental Organization**

- Monitor membership of departmental committees to ensure adequate female representation but without over-burdening female academics.
- Maintain awareness of Juno Committee activities by presentations at staff meetings.
- Minutes of all committees (apart from those dealing with confidential matters)
  are posted on the web once approved by the relevant committee.
- Monitor teaching and administrative workload gor all academic staff.
- Point system for all teaching and administrative duties available on dedicated web page, along with everyone's workload (non-anonymized).
- Unconscious bias training required for all RAs and academic staff.

## **The Juno Website**

Imperial College London





Sudden shifts in the course of a river on a delta may be predicted



Professor Alice Gast joins Malaysia's PM to discuss the nation's future growth



Study Research & Innovation Be Inspired About Search

Department of Physics

About News and Events Research Students Staff Information Outreach Safety Contacts

About

Alumni

Annual Review

Awards and Prizes

The Departmental Juno Transparency and Opportunity Committee was established in 2007 to implement the Institute of Physics' Juno Code of

Alumni

Annual Review

Awards and Prizes

Department History

Fellows of the Royal Society

Industry Club

Women in Physics

Juno Committee

Juno Achievements

Juno Timeline

Juno plans

Athena Swan Submissions

Give to Physics

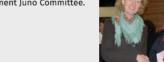
@ImperialPhysics

## Juno Transparency and Opportunity

Find out more about the work of the Physics Department Juno Committee.

endorsed an ongoing action plan.









practice which aims to support best practice for all staff with particular attention to putting in place practical actions to address the under representation of women in university physics. The Committee is also guided by the <a href="Athena Swan Charter">Athena Swan Charter</a>. The Department was awarded Juno

Championship status and the Athena Silver Swan award in 2009, this was renewed in 2012. The Head of Department and the Heads of Group have

Timeline of successes



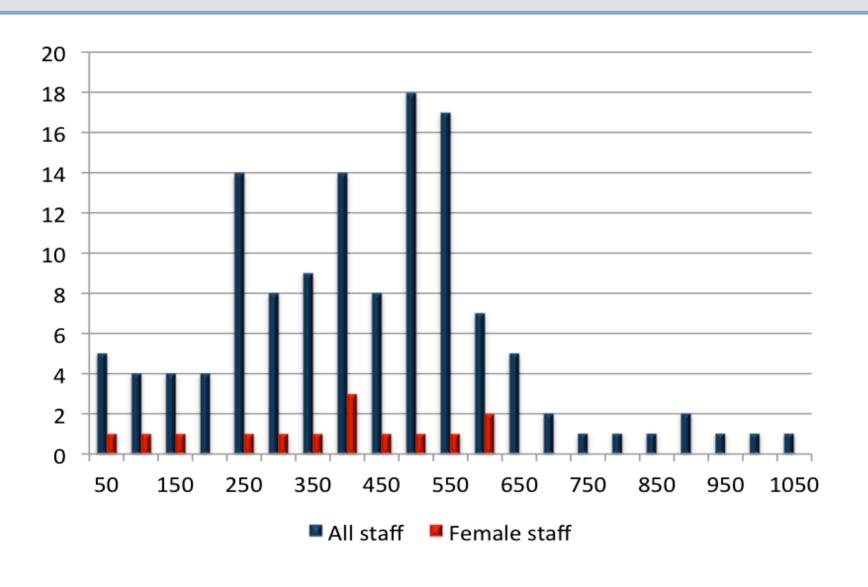
Plans



Athena Swan

Tweets by @ImperialPhysics

# **Workload Distribution of All Staff by Gender**



# **Career Breaks and Flexible Working**

- Allocation of teaching and administrative duties takes account of care responsibilities.
- Scheduling of individual teaching duties, group meetings, and departmental events accommodate care responsibilities
- Monitor take-up of reduced work-load model after return from maternity leave
- Departmental website has Women in Physics section, with links to childcare facilities, the Elsie Widdicombe scheme, and HR familiy friendly policies.

# **Summary and Concluding Remarks**

- Departmental support is essential (HoD, other senior staff)
- Institutional support desirable. At Imperial, Athena college-wide committee to share experiences, feed-back on draft applications.
- Essential to demonstrate impact of actions and initiatives through statistics and surveys
- Key changes to Athena SWAN: (i) not just about gender, (ii) not just about academics, (iii) not just about the sciences, (iv) more complete data presentation and analysis.
- For physics, the Institute of Physics is useful source of contacts, feed-back, and support.