

# IOP | Institute of Physics

## Women in Physics Group

### NEWSLETTER No 17

#### News from 2012 - 2013

#### Welcome notes from Dawn Leslie, WIPG Chair

Welcome to our first Newsletter of the New Year, which provides an update of our recent activities as well as some of our plans for 2013.

Our AGM in November 2012 saw many changes to the committee: Unfortunately we said goodbye to Dr Carol Thompson as Chair of the Group. I would like to take this opportunity to thank her again for all that she did for the Group whilst in office and indeed during her entire time on the Committee.

The elections at the AGM saw my appointment as Chair of the Group (thank you!), Dr Heather Williams taking the post of Hon. Secretary and Dr Gillian Butcher, Hon. Treasurer. We also welcome Professor Averil Macdonald, Dr Francisca Wheeler and Dr Josie Coltman onto the committee.

Within this issue of the newsletter is a variety of articles from members of the group. We always enjoy hearing from members of the group, and contributions for future newsletters are always welcome (please do send them to Amy Preece at [amypreece@ymail.com](mailto:amypreece@ymail.com)). You will also read about the 2012 Very Early Career Women Physicist of the Year, kindly sponsored by Shell, which was presented to Kate Sloyan from the University of Southampton. The award went to Kate in recognition of her work on thin film deposition and its use in creating materials with specific properties that can be used in a wide range of applications. We look forward to the launch of the 2013 Award and indeed to similar, outstanding applications.

Details of our forthcoming events, including Committee Meetings and the 2013 AGM are included here for your information. Thank you for your continued support of the Group and I look forward to meeting you during the course of the year.

Dawn.

#### WIPG Contacts:

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##### Treasurer

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##### WIPG Website:

<http://wip.iop.org>



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£1000  
Very Early  
Career  
Woman Physicist  
of the Year  
Award

See Page 8 for details

#### For your Diary

2013

Joint meeting with the IOP  
Physics Communicator's  
Group - Summer 2013:  
date to be announced.

Very Early Career  
Award Event and  
WIPG AGM  
Portland Place  
Wednesday 16th October, pm

## **Get to know your committee...**

New WiPG Committee Member Averil Macdonald is also a Board Member of UKRC/WISE. Here she sets out what the latest changes have been to both UKRC and WISE that bring them together into one, more powerful campaign.

**WISE?.... UKRC?.....Where are they now?** There have been numerous rumours of the demise of UKRC and odd ideas about the future of WISE so here is the definitive answer:

The UKRC, (the UK Resource Centre for Women in SET, based in Bradford College), had its funding from BIS withdrawn at the end of March 2011. At this point WISE, which focused on encouraging girls into STEM and most recently hosted within Engineering UK, transferred to the UKRC. The UKRC became a Community Interest Company (CIC) which is now independent from Bradford College. The mission of the new combined organisation WISE/UKRC is to promote female talent in STEM from classroom to Boardroom – see

<http://www.wisecampaign.org.uk/>

We on the WISE Board have focused WISE to work with business and industry to support them to improve their employment environment in order to attract and retain female talent. Corporate membership is available to companies that support our vision of a STEM workforce in the UK that is at least 30% female. If you would like your employer to become a corporate member then point them at <http://www.wisecampaign.org.uk/business>

There's also support for those working in education with free teaching resources and posters to encourage the next generation – see <http://www.wisecampaign.org.uk/education> as well as awards to recognise those making an impact – see

<http://www.wisecampaign.org.uk/about-us/wise-awards>

If your employer would be interested in sponsoring an educational resource or being a sponsor of a WISE Award, ask them to get in touch. Individuals can support the campaign by joining the GetSET Women database offering your expertise for media or speaking engagements or as a role model, sign up for the monthly e-bulletin (both free of charge), or becoming members with the benefit of accessing workshops, networking opportunities, mentoring and training see

<http://www.wisecampaign.org.uk/get-involved/individual-membership>

WISE is a small organisation that believes firmly in collaboration with others to make a bigger impact. We are working with the Institute of Physics and Intel to run girls groups at the Big Bang Fair in London, for example and are discussing joint projects with the Women's Engineering Society, STEMNET and ScienceGrrl I am proud of what we are achieving but there's still a long way to go.

Averil Macdonald is Professor of Science Engagement at the University of Reading having started her career as a physics teacher and then moving into university work after her career break.

She now focuses on engaging the public with research and with supporting and advancing women in science, through her work with WISE and with Athena SWAN. She is currently a member of Council of the Institute of Physics, a member of the Board of Trustees of the Science Museum, a Director of the Cheltenham Festivals, Chair of the Expert Group for Women in STEM and the UK representative on the EU 'Helsinki Group' for gender in research and innovation.

## **WIPG Committee**

### **2013**

#### **Chair**

Dr Dawn Leslie CPhys MInstP

#### **Secretary**

Dr Heather Williams MInstP

#### **Treasurer**

Dr Gillian Butcher CPhys MInstP

#### **Ordinary Members**

Dr Philippa Browning FInstP

Dr Josephine Coltman MInstP

Professor Helen Gleeson OBE CPhys FInstP

Miss Karla-Luise Herpoldt AMInstP

Professor Averil Macdonald CPhys FInstP

Miss Amy Preece MInstP

Dr Francisca Wheeler CPhys FInstP

#### **Co-Opted**

Mrs Ann Marks MBE CPhys FInstP

## News from our 2012 VECA Winner

If you're interested in politics even a little, you'll appreciate how much I geeked out as I entered the Houses of Parliament. I was invited to provide evidence to the **Business, Innovation and Skills select committee**, as part of their inquiry into **Women in the Workplace**. The overall remit was broad: topics being considered included equal pay, parental leave and pay transparency. In my session, however, the focus was on women in Physics. I appeared alongside Helen Wollaston and Trudy Norris-Grey, both of the Women in Science and Engineering (WISE) Campaign, and Professor Dame Jocelyn Bell Burnell, former IOP President and eminent astrophysicist.

It was a privilege to have the opportunity to discuss life in academia and the lot of women in science with MPs, people with lots of power but less understanding of the issues we face. Although the setting was a little intimidating, the committee were friendly and attentive, and seemed to genuinely want to learn. The testimony of the other witnesses was extremely interesting, and it was great to have the chance to make links with other women in STEM. I'm keen to read what the MPs decided, both on the basis of all the oral evidence (ours and previous sessions can be viewed online) and the piles of written evidence they'd received.

My biggest impression, though, was how refreshingly democratic the experience was. The picture of Westminster that's usually presented is very adversarial and not always very flattering. My experience, however, was of a group of representatives with different political backgrounds coming together to work out how to improve their constituents' lives. It was good to be reminded that this is what many MPs spend much of their time doing, and that you as a voter really can make a difference.

Kate Sloyan

## Stop Press!

For those working or studying in UK university departments: are you keen to get your departments involved in the Institute of Physics Project Juno or the Equality Challenge Unit's Athena SWAN Awards Scheme as a way to improve the working environment to support women to advance more readily in their careers?

If so then the RCUK announcement on 17<sup>th</sup> January is important to you!

See press release <http://www.rcuk.ac.uk/media/news/2013news/Pages/120117.aspx>  
and Statement <http://www.rcuk.ac.uk/documents/researchcareers/EqualityStatement.pdf>

This is a significant move forward by the Research Councils which says, put simply, that there will be an expectation that any department putting in an application for funding will provide evidence of progress working toward good practice in gender equality and that this evidence can be provided through involvement with schemes such as Project Juno and Athena SWAN.

In other words, being part of Project Juno and/or Athena SWAN will be a considerable benefit if you want to be considered for RCUK funding as providing the evidence that RCUK wants will be very difficult otherwise.

So if your department has yet to become involved, this could be the incentive they are waiting for.

## Congratulations...Again!

The Société Française de Physique and the Institute of Physics have awarded the 2012 Holweck Medal and Prize to Prof. Helen Gleeson OBE FInstP of Manchester University for her contributions to understanding the structures and electro-optical properties of liquid crystals.

The prize was established jointly in 1945 as a memorial to Fernand Holweck and other French physicists who suffered privation or met their deaths at the hands of the Nazis during the occupation of France from 1940 to 1945. The award is made for distinguished work in experimental physics or in theoretical physics which is closely related to experiment that is ongoing or has been carried out within the 10 years preceding the award.

The award is made in odd-dated years to a physicist based in France and presented in the UK or Ireland and in even-dated years to a physicist based in the UK or Ireland and presented in France. The medal is gold and is accompanied by a prize of 3000€.

Helen attended the Condensed Matter Meeting of the SFP at Montpellier in August to receive the prize. Previous winners of the prize include Prof. Dame Julia Higgins and Prof. Dennis Weaire.

## **Daphne Jackson Trust and the fellowships they offer women returners**

Many of you, as physicists, may be aware of Professor Daphne Jackson, the UK's first female professor of physics. I wonder how many of you know, though, what an amazing woman Daphne was, what a vision she had back in the 1980s, to help the progression of women's research careers. With the groundswell of interest in the Athena Swan Charter and recent publications from the Royal Society of Edinburgh one might be forgiven for thinking that interest in advancing women's careers is only fairly recent, but not so. In fact, it was in 1985 that Daphne first realised that women had a major problem when they took a career break for family reasons - and she did something very positive about it.

Daphne Jackson fellowships are normally two years, part time, and comprise a challenging research project and an individually tailored retraining programme. These fellowships worked very well and Daphne did a great job in encouraging organisations to sponsor and host fellows. Daphne was my Head of Department at Surrey and a great mentor to me, outwardly a little austere, she had a tremendously good sense of humour, and not many people know that she was Ben Elton's babysitter when she was herself a research student. Daphne sadly died in 1991 and the Trust was set up the following year to continue the fellowships that she knew were so necessary.

It seems very fitting to me that I am now running the Trust, as Daphne had such an influence on my career. I took over as Chief Executive in 2011 and we have made many changes to the organisation over the last two years. So if you knew the Trust before, please do find out about how we have evolved over the last two years. We really are a different organisation now!

One of the major changes has been the development of 'sponsored fellowships', where an arrangement is made for an organisation to sponsor or part sponsor a fellowship and then this opportunity is advertised in an open call. In this way, a sponsor can choose their preferred candidate for a fellowship opportunity and once an applicant has worked through the application process to the point of award they are able to commence immediately, rather than wait until sponsorship is arranged.

We currently have some excellent fellowship opportunities being advertised, so if you know of anyone who has been on a career break and is wanting to return then please do look at the website or contact us for further information. The current sponsored fellowships being advertised that could be relevant to physicists are:

- Fully sponsored fellowship at the University of Northumbria in physics and astrophysics.**
- Fully sponsored fellowship at the University of Glasgow in any STEM area.**
- Half sponsored fellowship at the University of Edinburgh in the College of Science and Engineering.**
- Half sponsored fellowship at the University of Huddersfield in Engineering.**

Half sponsored fellowships are matched with another suitable sponsor by the Trust. There will be other sponsored fellowships being advertised throughout the year with some potentially very exciting opportunities in the pipeline for physicists, so do please keep this in mind and look out for adverts.

So, I'd like to finish with a request, both for those who have known about the Trust and those who have never heard of us. Please look at our website and see how we have changed, look at what we do and go out there and tell people today that we are here and ready to help increase the number of women in STEM. In the past year we have had a new fellow start at Manchester in Astronomy, sponsored by the Royal Astronomical Society, we have two applicants in the process who will be half sponsored by the Open University in physics and astronomy.

The Daphne Jackson Trust is a charity that exists to support returners, particularly women, who wish to return to a research career after a career break of two years or more. For further information about the Trust please call the Trust office on 01483 689166 or email [djmft@surrey.ac.uk](mailto:djmft@surrey.ac.uk)

The fellowship opportunities listed above are on [jobs.ac.uk](http://jobs.ac.uk) and on our website but the closing date for them is 8<sup>th</sup> March so that is quite close but all we need initially is a CV and personal statement so do please spread the word to potential returners.

Dr Katie Perry, Chief Executive, Daphne Jackson Trust

## Physics; Home and Away

I am Estelle Asmodelle; I live in Australia but study by distance at University of Central Lancashire, UCLAN, and am in my 5<sup>th</sup> year part time towards a B.Sc. (Honours) in Astronomy.

While in my 2<sup>nd</sup> year, I began posting Physics and Astronomy news items on discussion boards and gained a reputation as being “the one” to ask as to what was going on. Allan Gall, editor for the Journal for the Institute of Science and Technology in the UK (<http://istonline.org.uk>) saw my articles and asked me to submit a series of articles on any subject I like. I have done 5 articles with IST to date, most on the development of Relativity. However I realised that only a select few were seeing these articles and so I sent one to Australia’s largest science publication, “Cosmos”. Consequently they offered me a part time job writing the Physics/Space/Astronomy news on their flagship website (<http://www.cosmosmagazine.com>) I agreed and wrote a series of short news items, which were rigorously researched, but it wasn’t technical enough for me, for I want to be a Physicist not a Journalist.

As a result of these articles I was asked to present a series of 12 lectures by the Newcastle Astronomical Society in Australia (<http://www.nas.org.au>), requesting a series of 12 lectures. This was quite something – although 12 seemed like a lot! I agreed and after completing the first on “Water on the Moon,” at the University of Newcastle to NAS and guests; then, the Sutherland Astronomical Society Incorporated asked me to give the guest 2 hour lecture at their annual general meeting, the topic was “Cosmology and the role of the General Theory of Relativity”. It was a hit, and I have more such lecture type presentations booked this year. Meanwhile I continue to study with UCLAN and work towards the completion of my degree. My long term plan is to study towards a PhD in General Relativity and Cosmology.

I know much of my work is based in Australia but if it wasn’t for my studies in the UK, none of this would have come about. I haven’t even been to the UK! Being a student at a UK university is far more interesting than my previous studies at an Australian University and with the internet anything is possible.

You can read more about me at my blog:  
[http://www.relativecosmos.com/wordpress/?page\\_id=1500](http://www.relativecosmos.com/wordpress/?page_id=1500)

*Estelle Asmodelle, Student in Astronomy at UCLAN*

## Communication & Impact for Female Early Career Researchers 'Women in Science and Media', 4-6 January 2013, Cumberland Lodge, Windsor

At the beginning of January this year a three day workshop was organized in collaboration with The University of Warwick (Professor Alison Rodger), SciConnect, Quercus Training and MITWAL. The tutors leading the sessions were experts in science communication and represented the above mentioned institutions: Claire Ainsworth (SciConnect), Helen Goulding (Quercus Training), Gareth Mitchell (Imperial College & BBC) and Greg Foot (BBC).

The participants had an opportunity to reflect on their own application of various skills involved in their professional development. The sessions proved very useful in terms of how to speak about science to different audiences and how to make an impact on the popularisation of science. The event was aimed at the researchers who wished to improve their presentation skills. Everybody felt encouraged and engaged, especially those female scientists who were interested in media communication.

The course was a combination of theory and practice. The theoretical part was focused on developing different ways of effective communication in the areas such as popular science writing and presentation skills. These issues were reinforced in the practical sessions as they involved preparing short TV programmes and radio podcasts. Everyone had a chance to become a TV/radio presenter as well as being on the other side of the camera. On the last day of the workshop, the participants visited the BBC Broadcasting House at Portland Place in London where everyone could work on and record a 20 minute radio piece.

This course proved to be very useful in terms of developing new skills as well as networking. After the course, a new group: WSTM was established on LinkedIn, Facebook and Twitter - the members who are the workshop participants, can share the news and information about their scientific and media activities that were enhanced by their experience gained during the course. It turned out to be a great and inspiring start of the New Year.

*Izabela Cebula  
 Postdoctoral Research Fellow, School of Chemistry & Physics and Astronomy, University of Nottingham*

## Outreach Activities for BBC Stargazing Live 2013

The Birmingham BBC Stargazing Live 2013 events were held at the University of Birmingham this year. Two thousand tickets were sold and the BBC estimated that about half as many people would actually turn up, so when the doors opened at 5pm on 9 Jan 2013, we weren't quite sure what to expect. What we saw was an enormous queue to enter the Stargazing venue in our humble physics building. That day about 800 people visited the University to learn how to use their telescopes, make rockets, and learn about space-- which just happens to be my speciality

I am a 3rd year PhD student in the Gravitational Wave group and I simply love doing outreach activities. For the BBC Stargazing Series, I organised a series of stations which guided our guests through the world of gravitational waves. The younger science amateurs were very taken with our lycra universe, which we used to demonstrate Einstein's theory of gravity (see photo). Our youngest participants delighted in ejecting material from the universe, much to their parents' and volunteers' chagrin. The older audiences were fascinated by the applications of General Relativity in our everyday lives through GPS location, and the keener ones stayed around to hear explanations of the twin paradox and how we can use the wobble of stars to look for giant planets.



As the Gravitational Wave group has many Laser Interferometer Gravitational Wave Observatory (LIGO) members, we also set up a working Michelson interferometer to show the audience how we look for GWs on the Earth. We supplemented our displays with colourful posters which exhibited our group's research and showcased the computer programs written by our group members for GW outreach-- namely Black Hole Pong and Space-time Quest. These together with other outreach material are available for free on [www.gwoptics.org](http://www.gwoptics.org).

Our group managed to garner some media attention on both the local news and the BBC Stargazing Live 2013 show on BBC2. I managed to claim about five seconds of fame (in Season 3 Episode 3, around 3 minute mark) when Dara O'Briain and Brian Cox went through photos from the local Stargazing Live events on the previous night. We are all looking forward to Stargazing Live 2014!

Chiara M. F. Mingarelli

## ScienceGrrl

ScienceGrrl was formed in the wake of the Twitter storm surrounding the EC 'Science: It's a girl thing' video, borne out of a growing desire amongst female scientists to recognise and celebrate what women are already doing in Science, Technology, Engineering and Mathematics (STEM). Our first project was the ScienceGrrl 2013 calendar, which showcases the work of a diverse mix of female scientists (and their male colleagues) in a wide range of scientific disciplines. The calendar was produced by Louise Crane, who was behind the sell-out Geek Calendar in 2011, and launched in October 2012 at a reception at London's Science Museum. The month of May (pictured) features WiPG Honorary Secretary Dr Heather Williams with Prof Nancy Rothwell, Dr Sarah Skeoch, Dr Hamied Haroon and Ms Karen Fuller in a shot which captures the patient-centred, collaborative nature of imaging research.

ScienceGrrl has sold over 900 copies of the calendar, online, through personal contacts and shops at the Science Museum in London, Museum of Science and Industry in Manchester, Imperial College London and Jodrell Bank in Cheshire. We're donating the remainder of the 1500 print run to schools, colleges, science clubs and science policy-makers.

We held our first AGM in London on 15th February and are looking forward to the next phase of our activities – a programme of pilot events designed to give girls and young women access to science role models, build peer support networks for female scientists, and raise the profile of female scientists in wider culture, in partnership with WiPG, WISE, and many other like-minded organisations.

More information will be appearing shortly on our website, [www.sciencegrrl.co.uk](http://www.sciencegrrl.co.uk), or for the latest news, follow us on Twitter: @Science\_Grrl.

Dr Heather Williams  
Senior Medical Physicist for Central Manchester Nuclear Medicine Centre, Honorary Secretary for WiPG, Director of ScienceGrrl – and @alrightPET



Picture credit: Naomi Goggin / ScienceGrrl

## WIPG Advisory Panel

WIPG would like to thank the WIPG Advisory Panel for their continued support and we are particularly grateful to those who have been judges for the Very Early Career Woman Physicist of the Year Award:

Prof. Dame S Jocelyn Bell Burnell, Past President of the Institute of Physics (2008 to 2010)  
Prof. Christine Davies, University of Glasgow  
Dr Dimitra Darambara, Royal Marsden NHS Foundation Trust, (once chair WIPG)  
Prof Dame Athene Donald, University of Cambridge  
Prof. Gillian Gehring, University of Sheffield, Team Leader ICWiP 2002, EPWS BoA to 2009  
Prof. Judith Glover, University of Roehampton, School of Business and Social Sciences  
Prof. Claudine Hermann, Ordre de la Légion d'Honneur (*commandeur*), Vice President EPWS, Ecole Polytechnique, Paris, and Femmes & Sciences, France  
Prof. Dame Julia Higgins, Professor of , Department of Chemical Engineering, Imperial College London  
Prof. Ruth Lynden-Bell, University of Cambridge  
Prof. Averil Macdonald, Professor of Science Communication, University of Reading,  
Prof. Peter Main, Director of Education and Science, Institute of Physics  
Ms Laura Sawyer, IPEM, Royal United Hospital Bath NHS Trust  
Prof. Elaine Seddon, University of Manchester and Cockcroft Institute Daresbury  
Dr Uschi Steigenberger, Rutherford Appleton Laboratory STFC  
Dr Allyson Reed, Director, Strategy and Communications at Technology Strategy Board  
Dr Helen Walker, Chair, RAS Committee for Women in Astronomy and Geophysics  
Dr Elizabeth Whitelegg, Open University, Science Education, Chair of the IOP Diversity Committee  
Prof. Julia Yeomans, University of Oxford, Team leader ICWiP 2005, EPS Council

### Call for nominations for the 2013 Very Early Career Woman Physicist of the Year Award **which carries a £1000 prize sponsored by Shell.**

The Women in Physics Group invites applications from women at the start of their careers in physics who have made a substantial contribution to the subject and have undertaken activities to support and encourage others in the field. The prize for this 7<sup>th</sup> annual award will be presented to a woman who is within five years of the award of her first degree in physics (Bachelor's or Master's) and is either working as a physicist or is engaged in postgraduate study in physics.

The prize will be presented at a **major Institute of Physics Women in Physics event in October 2013**. As well as providing recognition of the winner's work, the award will also provide valuable networking opportunities. Applicants must therefore be resident in the UK or Ireland.

The Very Early Career Woman Physicist of the Year Award seeks to recognise the outstanding work of women embarking on a career in physics and to promote the career opportunities open to people with physics qualifications. Thanks are due to Shell for their continued support.

All entries must be received by 31<sup>st</sup> May 2013 and should include a report of applicants' activities. Please see [http://www.iop.org/activity/groups/subject/wip/prize/page\\_40704.html](http://www.iop.org/activity/groups/subject/wip/prize/page_40704.html) for full details and the application form.

Ann Marks