



Thank you Gill!

We recently said goodbye to Gill Coggins, who has left NPL to move on to pastures new. Gill joined NPL in 1999 in the Marketing department and has held a number of administrative roles during her time here. More recently, Gill has been working in the Communications team and became the administrator to the Postgraduate Institute in July 2015. Her friendly face and caring attitude will be missed by the PGI and we would like to wish her all the best for the future.

WANTED: DIGITAL MEDIA AMBASSADOR

Are you an expert on social media?
Do you love to tweet?
Then this may be the role for you!

We are looking for a couple of students to help out the PGI by keeping our social media and webpage up to date. If you think you can help us please email pgiambassadors@npl.co.uk

Upcoming events

- IoP Conference of Physics and Astronomy students
8-12 Jun, Swansea
- PraxisAuril 2019 Conference
12-14 Jun, Harrogate
- SUPA Industry Skills course - NPL engaging with industry
20 Jun, Online
- Fundamentals of Metrology Metre Training
25 Jun, Teddington & online
- Instrumentation and Sensors Training
24 & 25 Jun, Strathclyde
- PGI Picnic in the Park
24 Jul, Teddington
- SEPnet - Physics- Industry Collaboration: Aligning Student Skills with Local Economic Need
25 Jul, London

To register for any of the above events please email pgi@npl.co.uk

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Director's message

Richard Burguete

As summer and the warm weather seems to be settling in, I hope that you will enjoy reading this latest issue of the PGI Newsletter. In it we continue to showcase the activities and talents of our Postgraduate Researchers and it is encouraging to see the steady stream of events and activities that have been planned. I particularly like the items highlighting the adventures and successes of our PGRs which are very gratifying and continue to reinforce the fact that your experiences are interesting and valuable. Please continue to send us your stories as many of our partners are keen to see what a brilliant group of Postgraduate Researchers you are. I also think it is very beneficial to show how you are making an impact as you develop your research and careers, and that you are creating what will hopefully be enduring friendships and collaborations along the way.

In addition to the programme of events in view, I am very pleased with how the next PGI conference preparations are going. There is a great programme of speakers and activities being developed so please start thinking about preparing a presentation or poster for this as the deadlines will be approaching soon.

As you can see from the front page, we recently said goodbye to Gill Coggins, who has been the PGI's Administrator since the very beginning. I personally want to extend our sincere gratitude for her hard work, and her desire to make things special for all our PGRs. Her warmth and good humour will be missed, and we wish her the very best for the future.

...and keep an eye out for an announcement about the PGI picnic which is in the planning for around late July. I look forward to seeing you there.



Rhiann at the top of Table Mountain

Editor's message

Rhiann Canavan *University of Surrey*

For this issue of GradPost, I thought I'd share a little about the travel I've experienced as part of my doctorate, complementing the theme of our Brexit article.

My PhD is joint with the Nuclear Metrology Group at NPL and the Experimental Nuclear Physics Group at the University of Surrey, where I focus on gamma-ray spectroscopy techniques to study the structure of interesting and exotic nuclei. The main aims of my research are to help to build up the bank of nuclear data, which consists of properties of nuclei such as the spins, parities, energies and lifetimes of excited nuclear states, the probabilities of certain nuclear reactions and processes, and the yields of these reactions.

During my PhD I have had the possibility of travelling to many different countries to participate in experiments, workshops and conferences. My favourite thing about travelling has been meeting people from all over the world who have had such varied life experiences. Learning about the different cultures and exploring different parts of the world has been fantastic. I have seen places that I never would have thought possible if I hadn't begun my PhD.

The Advanced Nuclear Science and Technology Techniques conference led me to Cape Town last year, where I had the opportunity to stand on top of Table Mountain, meet the penguin colony on Pebble Beach, visit the Cape of Good Hope and Kirstenbosch Botanical Gardens, and to pet a cheetah. I have also spent a significant amount of time working in an institute in Paris, using the accelerator to perform experiments. Here, when I am not working in the laboratory, I have time to go out and explore the city: wandering around the Louvre, standing at the top of the Eiffel Tower or Arc de Triomphe, or strolling along the Seine.

From all of these places, the thing which I am most grateful for, and what remains the most special part of my PhD, is the people I have met along the way.

IoP Early Career Award

Paddy Regan *University of Surrey*

Dr Rob Shearman, one of our PGI alumni, has won the IoP Nuclear Physics Group Early Career Award.

The Early Career prize is awarded annually by the Institute of Physics (IoP) to 'promising early-career scientists for outstanding contributions to the field of nuclear physics'. Rob was nominated for the award for his PhD thesis work on nuclear metrology. His project looked at radiation instrument development for medical isotope standardisations, and the characterisation of exotic primary nuclear fission fragments linked to nuclear fuel waste products.

The citation for the award stated:

"Dr Robert Shearman has made very significant contributions to the related fields of radionuclide metrology and nuclear structure physics. His work has provided an academic bridge between applications of nuclear science and curiosity-led nuclear structure based research enquiry, through the development of the National Nuclear Array (NANA) at NPL for primary radionuclide standardisation and parallel analysis on experimental nuclear fission yields and beta-delayed neutron emission from the most neutron-rich Rhodium and Silver isotopes."

Rob started at the University of Surrey as an MPhys student, followed by a PhD in Nuclear Metrology funded by the Nuclear Decommissioning Authority (NDA), where he was based primarily at the National Physical Laboratory. Following the completion of his PhD in 2018, Rob was employed as a Higher Research Scientist at NPL where he is continuing his research work in the precision characterisation and measurement of radioactive decay.

Dr Daniel Doherty, a lecturer at the University of Surrey who nominated Rob for the award, said:

"Rob is clearly one of the strongest and most versatile young scientists working in the field at present and he has made significant contributions in a number of related fields. Rob's award also demonstrates the excellent work being thanks to the Surrey-NPL partnership."

Well done to Rob from the PGI!



Training Survey: Future Plans

Hannah Cook *University College London*

At the beginning of the month, we asked for everyone's feedback regarding current and future training and events available through the PGI. Thank you to all who took time out of their day to respond to the survey.

Based on the findings of the survey and other sources of evidence (event feedback forms, student testimonials, etc.), the PGI team and Training Ambassadors are now looking to introduce new training elements into the PGI training provision. New courses will likely include Essential Statistics training and Scientific Writing and Presenting Your Research training. An interest in PGI mixers and lunchtime seminars was also expressed in the survey.

So, please do keep in the loop and check out the PGI bulletin for upcoming training opportunities and events. If you didn't have a chance to complete the survey or if you have any further ideas, please email PGI directly: PGI@npl.co.uk

BREXIT.

It's a word we can't seem to escape from nowadays. Brexit. All over the news. Brexit. Plastered across the media. Brexit. Conversations along the corridors and during your lunch break. Well, in case you haven't had enough already, we thought we'd include it here in GradPost.

Everyone has already seen the polls across the internet and all over social media, all claiming to reflect the public's opinion. So here at GradPost we thought we would get in on the action and find out what early career researchers within the PGI community really think about Brexit, and the impact it has or will have on their work. We reached out to you with a survey and the responses flooded in, so we'd just like to say a quick thanks to you all! This article wouldn't have been possible without all of those contributions!

Remain a member of the European Union

☐

Leave the European Union

☐

We all remember the referendum back in 2016, but have our opinions on the matter changed at all? Out of the 51 people who were surveyed within the Postgraduate Institute cohort, 12% would now vote differently if they had the chance, and 4% decided not to vote at the time but now wish they had. Four in five of us think that this decision will have a negative impact on our research, particularly in terms of obtaining access to facilities and funding, and also with having opportunities to build collaborations with EU researchers. Theresa May once claimed to match the EU funding for science and research, but that idea is now long-forgotten (read about it here: www.phgfoundation.org/blog/the-impact-of-Brexit-on-science-and-health).

Here at NPL, we are an international group of researchers, working on a variety of projects across the physical sciences. This was reflected in the survey responses, with answers coming from both UK and EU nationals. Regardless of where we are from, the EU is an important feature of most of our research careers so far, even as postgraduate researchers, with 83% of us having clear interactions with the EU in our research. One third of us receive EU funding and 62% are involved with collaborations within the EU. The opportunities to travel for work are bountiful in most research careers, with three-quarters of us planning to travel within the EU as part of our work. Unfortunately, 88% of us expect that Brexit will cause this travel to become more difficult.

What area(s) of your work, if any, have been/do you think will be affected by Brexit?



The general feeling among the PGI research community is that Brexit has provided an air of uncertainty around things, which is quite an uncomfortable feeling at a National Measurement Institute (ha ha) where we, as scientists, use logic, reason and facts. Our instinct is to achieve the best, whether that is providing the best service to customers or to make obtain the highest quality results for an experiment, and this can only be done with access to the best equipment and research colleagues. The prospect of losing high quality researchers due to difficulties of remaining in the UK, or the lack of new researchers travelling to the UK for work, is saddening. Although, until all the details surrounding visas, BRP Cards and Immigration Health Surcharges are fixed, it is hard to establish how our EU and non-EU friends will be affected.

As an outlook to the future, the idea of leaving the EU has caused 78% of us to be worried about our future careers and performing research in the UK. Some of us are worried about opportunities available for work in the UK in general, whether it be for research or otherwise. However, only 39% of us would say that Brexit has affected their likelihood of working in the field of academic research field in the future. So keep a smile on your faces, most of your PGI friends will still be around, furthering research, for a long time to come!

"...it opens a new door of uncertainty. It means that I don't know what is to come and how that will impact my career prospects and ability to work abroad. This is unsettling because it threatens the success of my future career and prospects."

Fun and games!

Ben Webster *University of Surrey*

Back at the end of March, the PGI gathered at NPL Teddington for the inaugural PGI Board Games night. As with most PGI events, pizza was involved, but to my disappointment there was no pineapple in sight! However, a whole new debate rose to the surface... Who would put seafood on pizza? Let us know your thoughts

(<https://www.surveymonkey.com/r/RVDY97K>), the fate of the world may depend on it... well probably not, but it still would be interesting to know.

Anyway, back to the game at hand (pun intended). An obligatory dispute over the rules of Uno unfolded even before all the pizza was consumed; it was decided you could stack +2s but not +4s. Throughout the evening people played a variety of games, from Fibbage on the big screen to a rather deceptive, sabotage-driven game of Codenames. Others dived into Carcassonne, Dobble and the Jackbox Party Pack. Overall it was an enjoyable, competitive and fun-filled evening.

If you would like another PGI Games Night in near future, or if you have any other social event ideas, then let the PGI Ambassadors know at pgiambassadors@npl.co.uk



Ambassadors

Ambassadors are an important part of the PGI, with roles including anything from organising training and socials for us all, to supporting students with PhD life and creating our annual review. Below are the current ambassador roles and the PGI staff and students assigned to each. If you have any ideas, suggestions, or require support in any of these areas, the ambassadors would be delighted to help.

We have recently decided it would be useful to have several students dedicated to keeping our social media and webpage up to date, so if this is something you'd be interested to get involved in, please contact pgiambassadors@npl.co.uk. The experience to be gained from being an ambassador is worthwhile and a great way to develop transferable skills for life beyond your PhD. We are especially keen to hear from students based outside of Teddington

Events & training

Linden Fradet

Hannah Cook
Dan Flintoft

Welfare

Rebecca Deller

Leonardo del Bino
Michael Woodley
Lewis Hill

Communications

Leah Chapman

Emma Braysher
Rhiann Canavan
Ben Webster

Digital media

Richard Burguete

PGI conference

6-7 November 2019

We would like to invite you to take part in the Postgraduate Institute for Measurement Science fourth Annual Conference.

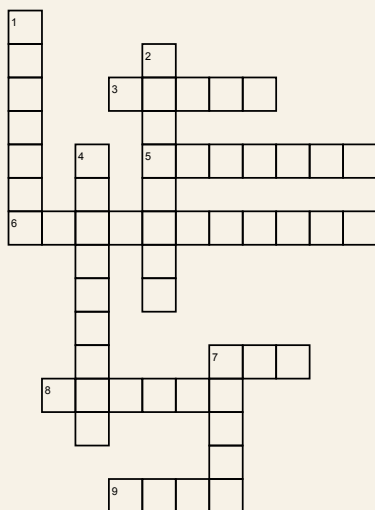
We are excited to announce that we have a great line-up of Keynote Speakers already confirmed: Prof Elisa Morgera, Strathclyde Centre for Environmental Law and Governance; Professor Graeme Reid, UCL; and Fred Wilson, GlaxoSmithKline. We are also delighted to announce that we also have a number of confirmed exhibitors, including IoP, National Instruments, Anatune and IET, who will kindly join us for the conference.

The two-day event will illustrate how the work we do can impact on our future prosperity and quality of life. You will also get a chance to hear from some of our partners and funders on how measurement science is making a difference in industry and more broadly on society. Some great professional development workshops are also being organised with our partners, SEPnet and IoP.

Abstract submission is now open for oral or poster presentations and will be welcomed until 15 July. This is a great opportunity for all students to get involved and present in a friendly and supportive environment. There will also be an 'images of research' photo competition with a prize for the winner, so get snapping!

Further details of the event can be found at www.npl.co.uk/pgi/pgi-conference-2019.

PGI Crossword



Down:

1. Drugs used to reduce cholesterol levels
2. A bread commonly confused with Richard's surname
4. The German city that is twinned with Glasgow
7. The fifth SI unit, alphabetically

Across:

3. The Olympian who has a golden postbox in Teddington
5. The element on the periodic table which has the atomic number 92
6. The university which held 2018's PGI conference
7. The month which holds World Metrology Day
8. The first name of the new royal baby
9. The page number of GradPost with a hidden SI bot

Complete the PGI crossword and return to pgiambassadors@npl.co.uk for the chance to win a prize!

Contact us

Editors:

Emma Braysher
emma.braysher@npl.co.uk

Rhiann Canavan
rhiann.canavan@npl.co.uk

Ben Webster
ben.webster@npl.co.uk

PGI team:

Richard Burguete, *Director*
richard.burguete@npl.co.uk

Leah Chapman, *Operations Manager*
leah.chapman@npl.co.uk

Linden Fradet, *University Liaison Manager (North)*
linden.fradet@npl.co.uk

Rebecca Deller, *Temporary Administrator*
rebecca.deller@npl.co.uk

Other contacts:

PGI Ambassadors
pgiambassadors@npl.co.uk

PGI metrology



pgimetrology



PGImetrology



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