

# NEWSLETTER

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## Scientists meet Nobel laureates

Last June three Irish physics researchers embarked on a voyage of discovery to Lindau in Germany, where they came face to face with their scientific heroes for the first time. From 29 June to 4 July, Shane Bergin, Jim O'Doherty and Iris Choi attended the 58th Meeting of Nobel Laureates in Lindau. The researchers were supported by the Irish Research Council for Science, Engineering and Technology (IRCSET) and the Institute of Physics in Ireland.

The Lindau Nobel Laureate Meetings ([www.lindau-nobel.de/](http://www.lindau-nobel.de/)) are a globally recognised forum for the transfer of knowledge between laureates and young researchers. The laureates give presentations on their chosen topics. Lively discussions in plenary sessions include audience participation, and interdisciplinary questions are encouraged. Specially organised discussions offer small groups of students the opportunity to interact with a designated laureate for several hours. Social events bring the promising scientific newcomers into personal contact with the Nobel prizewinners.

### The researchers' views

● **Shane Bergin** Communication is the life-blood of science. As researchers we strive to publish our findings in prestigious journals and speak at international conferences. As well as recording our work, marking our individual contributions, it allows us to develop our findings by fostering co-operation and collaboration with scientists throughout the world. As forums of scientific communication go, there are few better than the Meeting of Nobel Laureates at Lindau. The opportunity



Top: Shane Bergin, Iris Choi, Prof. Douglas Osheroff (shared winner of the 1996 Nobel Prize for Physics, Stanford University, California, US) and Jim O'Doherty. Bottom: Tian Sang (Chinese delegate) and Ilya Gurwich (Israeli delegate) mingle with the Irish researchers.

afforded there allows young researchers to listen, learn, debate and develop scientific skills by interfacing with the people behind some of the greatest scientific achievements of our recent past.

For me, one of the major highlights of the conference was meeting Nobel laureates from fields other than my own. The week-long conference saw laureates and delegates from areas as diverse as particle physics to materials physics interacting and sharing

experiences. Talks given by the laureates varied in style; historical and cutting-edge research was presented in order to impart the backgrounds behind Nobel-winning work. A heated debate on climate change gave clear and concise scientific reasons for rising global temperatures and humanity's link to such a rise. The various international perspectives spoke volumes at this discussion. Finally, advice was thrown in by many on the winning recipe for the prize,

but it struck me as the week went on that each had a unique method of attaining it and that no discernable trait emerged: reassuring for all attending.

● **Iris Choi** This year, I was one of the three lucky postgraduate students from Ireland who was nominated by the Institute of Physics and IRCSET to attend the 58th Meeting of Nobel Laureates in Lindau. I was delighted that I was given the chance to participate in this event. It was a once-in-a-lifetime experience – I thoroughly enjoyed the meeting. It provided a great opportunity for young researchers to exchange knowledge with each other and with the Nobel laureates.

The Irish delegates discussed many interesting subjects (from mini hard disks to the significant drop in school-leavers taking physics as a subject) with three Nobel laureates (Prof. Peter Grunberg (2007), Prof. Ivar Giaever (1973) and Prof. Douglas Osheroff (1997)) in the radio interviews.

I was also selected to interview Prof. John Hall (2005) to discuss the future of fibre optics. This was organised by *Nature* and was filmed by Martin Freeth, who directed the BBC popular science programme *Horizons*. The interview, entitled "Fibre and Sunlight: John Hall", can be viewed at [www.nature.com/video/lindau/index/](http://www.nature.com/video/lindau/index/).

During the meeting I met researchers from more than 60 countries. I took the opportunity to promote Ireland as a centre of photonics research excellence to researchers worldwide. I am delighted that the conference will provide an alumni database, which will allow all of the participants to remain in contact with each other. I think that this will enhance cross-cultural

contacts between researchers and create possibilities for future collaborations.

● **Jim O'Doherty** Of course, it's not all work and talking shop at the Nobel laureates conference, as the three of us were to find out the very first day. Getting an insight into these bright sparks' minds takes more than scientific understanding. Social networking was obviously a well thought out plan by the organisers, and the idyllic setting of the island of Lindau gave us all the opportunity to catch the Nobel visionaries in a more relaxed environment, where we could really find out what makes these great minds tick. Indeed, I overheard a certain laureate indicate whimsically that he couldn't escape the barrage of scientific questioning from a pocket of students.

We were treated to a relaxed informal dinner every night and even had the pleasure of taking part in a traditional Bavarian get-together, complete with a Bavarian band in lederhosen performing traditional dance. And, of course, there was traditional Bavarian food and drink, with the celebrations led by Countess Bernadotte.

We were required to explore the island, even from the point of view that some of the question-and-answer sessions were held in the town at Altes Rathaus (or old town hall) – a beautiful colourful building in the heart of the town. The highlight of the trip for many was the cruise to the island of Mainau, a beautiful tourist attraction in the middle of Lake Constance owned by a former Prince of Sweden. It mainly consists of a huge botanical garden surrounding a grand castle, and it was on this cruise that many students got up close and personal with many of the laureates. It was great

to see them in relaxed mode and to realise that, although these are very special people, they do appreciate the more mundane things in life and are human beings after all. I'm sure that many of the students will have fond memories of Prof. Douglas Osheroff running to and fro with his camera taking many photographs for his own personal collection.

Overall, as many students know from attending scientific conferences, networks are made from these types of gathering of bright individuals. But this one will be sure to remain in the forefront of everyone's mind.

#### About the researchers

● **Shane Bergin** is a postdoctoral research fellow in the School of Physics and CRANN, Trinity College Dublin. He works with carbon nanotubes, which are a form of carbon that exists in long, narrow tubes, each one-ten-thousandth of the width of a human hair. Despite their tiny size, these molecules have incredible strength (they are much stronger than reinforced steel), they have unique electrical properties (they move current much faster than copper, which is used in engineering) and they also act as excellent conductors of heat (a major issue that electronics companies face). However, when they grow they stick together in bundles, which severely diminishes their superior properties.

Bergin's work involves investigating the different methods that are available to pull apart the bundles of nanotubes without damaging them. Following work carried out during his PhD at Trinity College Dublin, and in collaboration with research colleagues from around the world, specific solvents have been discovered that break

these bundles, resulting in individual nanotubes. Solutions of debundled tubes are now used to make smart composites – materials that will potentially be at the heart of the materials of tomorrow.

Bergin was the winner of the 2007 Science Speak competition, which is organised by the Irish Universities Promoting Science, the RDS and the *Irish Times*.

● **Iris Choi** is a PhD student under the supervision of Prof. Paul Townsend in the Photonics Systems Group, Tyndall National Institute, UCC.

She is currently conducting research in the field of quantum cryptography, where information is protected by the fundamental laws of physics. Unlike conventional cryptographic schemes, which rely on various unproven principles of mathematical complexity, the security of quantum cryptography systems is theoretically provable and, uniquely, can be continuously monitored during operation. Choi was the inaugural winner of the Institute of Physics Rosse Medal in 2007.

● **Jim O'Doherty** has just completed a PhD in the Department of Physics, University of Limerick, where he studied biomedical physics and bio-optics. He designed a new device for non-invasively measuring red blood cell concentration in skin tissue. The device is now in commercial production. O'Doherty recently completed PhD research, supported by IRCSET. He was the winner of the IOPI Postgraduate Poster Prize in 2005 (renamed the Rosse Medal in 2007), and also the national Hamilton Prize for Physics in 2005. He now works as a medical physicist at the Royal Surrey County Hospital.

## MyIOP helps you to keep in touch

MyIOP is designed to put you at the heart of the physics community in a secure, online environment where you can communicate with your selected network of contacts. It gives you access to a unique pool of physics expertise. With 35 000

members of the Institute, you'll have access to a powerful source of scientific, business and personal knowledge. There's the chance to interact with people from other disciplines, and to experience different approaches and new solutions that can help your professional development and progress your career.

MyIOP puts you in direct

contact with your subject group and your branch, and it is an ideal forum for voicing your opinions, sharing your ideas and presenting your theories. It's the perfect place to start a debate. It is very simple to use and it's easy to get involved. You will need to have a current username and password to access the members area of the Institute's website.

## Thanks to a most dedicated editor



*Peter van der Burgt, editor of the branch newsletter since 2000.*

Peter van der Burgt has been editor of this newsletter for eight years. He has prepared and edited 22 newsletters, including the wonderful 40th anniversary issue ([www.iopireland.org/aboutus/40th\\_anniversary/page\\_17271.html](http://www.iopireland.org/aboutus/40th_anniversary/page_17271.html)), which is an important archive and reference point for all of us in IOPI.

Sadly, Peter has decided to step down as editor due to a number of other involvements (including the Atomic and Molecular Interactions Group).

Our gratitude and thanks go to him for his enormous contribution, formerly as honorary secretary of the branch, as newsletter and web editor, and not least for the time he has spent organising and scanning documents in the ever-growing IOPI archive.

Until a new editor is in place e-mail your material for future issues of the newsletter to [alison.hackett@iop.org](mailto:alison.hackett@iop.org).

**IOPI committee**

## Students receive free membership

The Institute of Physics is now giving free electronic membership (without printed copies of *Physics World*) to all undergraduate physics students on accredited or recognised courses, starting in September. The option of student membership with printed copies of *Physics World* is still available to students on physics courses for the price of £14 per year (rising to £15 next year).

# Tracking stars with satellites, telescopes

Gear mechanisms from ancient Greece, searching for the essence of matter and observing supernovae remnants were just some of the topics that were discussed at Frontiers of Physics. This is the annual Institute of Physics conference for physics teachers, which was hosted by the University College Dublin (UCD) School of Physics on 27 September. The conference was also supported by the Second Level Support Service and Rolls Royce.

Prof. Mike Edmunds from Cardiff University opened the day with a journey through classical Greece and his research into an ancient device found in a shipwreck off the Greek island of Antikythera. Surface imaging and X-ray tomography revealed some of the astronomical significance of this unique device, which is believed to date from around 100 BC. With more than 30 intricate gears, it was capable of predicting eclipses and when the Olympic games should be held. Edmunds concluded that his group would wait until more information was known before building a replica.

Alison Hackett from the Institute of Physics then showed some movies made by secondary-school students for the Planet SciCast competition.

**“Saturday was a wonderful day in University College Dublin at the Frontiers of Physics Conference – great lectures, demonstrations and the opportunity to meet so many physics teachers in one place. Sincere thanks to the organisers who did a marvellous job. I look forward to Waterford next year.”**

**Jimmy Brophy, Our Lady’s Secondary School, Castleblaney, Co. Monaghan**

**“A quick word of thanks to all of the organisers from the Institute of Physics Frontiers day in University College Dublin last Saturday. It was a terrific conference, with a myriad of very interesting speakers, lots of nice goodies and a lovely lunch. So well done and I am looking forward to Waterford Institute of Technology next year.”**

**Derarca (Dee) Maguire, CBS Kilkenny, James Street, Kilkenny**

They included entries from Irish students illustrating how the central locking mechanism in cars works as well as a winning UK entry on the strength of friction. Teachers interested in getting their students involved in the competition can find out how to apply at [www.planet-sciCast.com/](http://www.planet-sciCast.com/).

The search for the essence of matter and particle physics was the theme of a presentation given by Dr Ronan McNulty



*Left: the audience at the Frontiers of Physics Conference enjoying Rory Geoghegan Teacher Network coordinator presents Prof. Mike Edmunds with a gift after his presentation.*

from the UCD School of Physics. He explained how researchers from UCD helped to build and test the VELO detector, which is used as part of the €6 bn giant particle collider – the Large Hadron Collider (LHC) – at CERN (the European Organisation for Nuclear Research).

Dr Vio Buchete of the UCD

School of Physics then showed how theoretical physics can be used to give us some insight into diseases such as Alzheimer’s.

The last talk to be given was by Dr John Quinn, a UCD astrophysicist, who began by saying: “Nature has particle accelerators more powerful than the LHC.” He illustrated how his

## Physics teachers enjoy the annual conference

The 35th annual Physics Teachers Conference, which was held in the Department of Physics and Astronomy at Queens University Belfast on 25 June, was attended by approximately 50 teachers. They were all pleased to have finished yet another hectic year and keen to have the opportunity to meet old pals and share ideas.

The main speaker was Wendy

Sadler from Science made Simple who entertained us with a science show incorporating a variety of demonstrations that could be carried out in the classroom. This was well received by all and gave a valuable insight into different ways of teaching the common topics of light and sound.

Prof. Bob McCullough was next to speak and gave an extremely interesting talk on

the continuing research that Queens University Belfast is doing on using ion-beam therapy in the treatment of tumours. Teachers welcomed this opportunity to keep up to date with the many new techniques that are being developed in this field.

Delegates then attended two open workshops: Data Harvest demonstrated how to use some of its new sensors and also gave teachers the chance to use them. This is very useful when there are so many different types available and budgets are tight. The Irish Science on Stage team had a large number

of demonstrations set up that, as usual, were appreciated by all. It is sometimes these simple demonstrations made from everyday materials that prove most successful in catching the imaginations of both teachers and students.

Thanks are due to all who helped to make the conference so successful, especially the Queens University Belfast Department of Physics and Astronomy, which never fails to entertain us and give the teachers a well deserved day out at the end of the year.

**Vida Given** Teacher Network coordinator

**Check out our website at [www.iopireland.org](http://www.iopireland.org)**

# ropes and gears from ancient Greece



Geoghegan's "Some of my favourites" presentation. The conference was hosted by the Institute of Physics and UCD School of Physics: Middle: Paul Nugent, presentation on the Antikythera mechanism. Right: Physics teachers Patricia Dwan (left) and Mary Hackett at the Institute of Physics stand.



research group examined the gamma-ray sky for phenomena such as supernovae and gamma-ray bursts.

The audience also got a chance to hear some pulsars, one of the most impressive being the Vela pulsar, which was like listening to a star the size of Earth spinning faster

than a kitchen blender.

Each year in December the UCD School of Physics hosts a week-long transition year programme. Prof. Padraig Dunne gave an overview of some of the practical activities, such as launching rockets and building telescopes. Students interested in applying can

visit the UCD Science website at [www.ucd.ie/science/outreach/011208\\_ty\\_week\\_physics.html](http://www.ucd.ie/science/outreach/011208_ty_week_physics.html).

The second half of the meeting began with demonstrations by Rory Geoghegan from Froebel College of Education. Concluding the day was a

discussion on the new Leaving Certificate Physics by Dr Michael Halton, NCCA.

The programme and links to the presentations are all available at [www.ucd.ie/physics/preston/outreach\\_frontiersofphysics.html](http://www.ucd.ie/physics/preston/outreach_frontiersofphysics.html).  
**Orla Donoghue** science programme office, UCD

## Science Speak 2008 announces its winner

Explaining state-of-the-art science to a general audience and capturing their attention is the aim of the Science Speak competition, which is organised by the RDS, the *Irish Times* and Irish Universities Promoting Science. Every year, postgraduates from all seven universities are asked to present their research in concise 10 minute talks using a language accessible to all.

On 30 April the winners of this year's heats gathered in the RDS and presented their work on a range of topics including biohazards, the

nature of chemistry, artificial bones and new treatments of cancer, multiple sclerosis and Alzheimer's disease.

Despite this year's tough competition, the award went to physics postgraduate Suzanne McEndoo from University College Cork. (Her supervisor is Thomas Busch.) She presented her research, "Calculations with quantum whirlpools" in the area of quantum information as part of the Ultracold Quantum Gases Group funded by the Science Foundation Ireland. Using tiny vortex structures in superfluid, ultracold gases,



Mary Hanafin (left), Suzanne McEndoo (centre) and Pat Kenny.

McEndoo explained that the sense of rotation can be used to encode a classical bit. However, as these tiny whirlpools are in fact quantum objects, they also allow for currents to be in superpositions between the two possible senses of rotation, thereby allowing them to be used as quantum bits.

While it is often believed that

this kind of research does not lend itself to the imagination of a broad audience as readily as medical or pharmaceutical research does, the judges were fascinated by it and awarded McEndoo the top prize.

The evening was hosted by Pat Kenny. Mary Hanafin, the then minister for education and science, presented the award.

# Planet SciCast picks best films



The team from St Joseph's College Lucan reached a shortlist of five from 90 entries, pictured with their teacher Declan Doherty.

Planet SciCast is a competition in which a maximum of five people prepare a film (up to 2.5 minutes long) demonstrating and explaining some aspect of science. A web resource of all of the movies that have been accepted is provided.

Planet SciCast is a project developed by Planet Science, the National Endowment for Science, Technology and the Arts (NESTA), the Engineering and Technology Board (ETB) and the Institute of Physics. Discover Science and Engineering are joining the sponsors in order to extend the competition to all categories in the Republic of Ireland. (Last year it was only the physics category that could be entered from the Republic of Ireland through the Institute's involvement.)

For the last competition, two Irish entries were nominated to attend the Hollywood-style red-carpet Planet SciCast Awards ceremony, which was held in London on Friday 25 April and hosted by TV science presenter Dr Laura Grant.

The nominations were for: "Best physics film" – *Central Locking* from St Joseph's in Lucan and "Best entertainment film" – *Under Pressure (III)* from Ballyclare High School, Ballyclare, Co. Antrim.

The Planet SciCast Awards and the Irish-nominated best physics film featured on the RTE

news that evening. The full clip can be viewed at [www.rte.ie/news/2008/0425/science.html](http://www.rte.ie/news/2008/0425/science.html).

To get an idea of the competition, have a look at the following four physics films. If you need a laugh to brighten your day, the two best entertainment films below should help:

- *Central Locking* – Republic of Ireland entry nominated in "Best physics film" category. See [http://planet-sci-cast.com/view\\_clip.cfm?cit\\_id=2701](http://planet-sci-cast.com/view_clip.cfm?cit_id=2701).
- *Under Pressure* – Northern Ireland entry nominated in "Best entertainment" category. See [http://planet-sci-cast.com/view\\_clip.cfm?cit\\_id=2719](http://planet-sci-cast.com/view_clip.cfm?cit_id=2719).
- *Stronger than Friction* – winner of the Grand Jury SciCast Prize 2008. See [http://planet-sci-cast.com/view\\_clip.cfm?cit\\_id=2720](http://planet-sci-cast.com/view_clip.cfm?cit_id=2720).
- *Refraction* – winner of the "Best entertainment and best technical and artistic achievement" category. See [http://planet-sci-cast.com/view\\_clip.cfm?cit\\_id=2728](http://planet-sci-cast.com/view_clip.cfm?cit_id=2728).

The deadline for the 2009 competition is 9 January. Rules, advice, tips on cameras to use and copyright issues when using music (read this carefully if you are thinking of entering a film), as well as many films, are available on the Planet SciCast website at [www.planet-sci-cast.com](http://www.planet-sci-cast.com).

**Alison Hackett** Institute representative

## Briefing focuses on science and the economy

The Institute held its second Key Insight Business Briefing at Queen's University Belfast on 19 May, exploring the topic of science education for a knowledge economy.

Dr Hugh Cormican, chairman of the Northern Ireland Science, Technology, Engineering and Mathematics (STEM) Review, discussed science uptake issues at school level that are being considered.

Sir Brian Fender, chairman of the Institute of Knowledge Transfer, reflected on how academic learning can be translated into economic benefits. The speakers were joined on a discussion

panel by Dr Norman Apsley, CEO of the Northern Ireland Science Park and recently appointed Institute of Physics vice-president. Also contributing to the panel was Dr Eoin Gahan, head of Regulation, Trade and Policy Foresight in Forfás, who brought an interesting southern dimension to the discussion, reflecting on recent changes in the republic on science funding and policy.

The event, attended by around 50 senior industry, academic and policy makers, included a lively discussion.

Following on from this the IOPI have been invited to meet Caitriona Ruane, Northern Ireland minister for education, to discuss issues arising from the STEM Review.

**Sheila Gilheany** Institute policy officer

## Head of physics AGM addresses low third-level student numbers

The annual meeting of heads of physics departments was held in the Royal College of Surgeons on 1 May.

It was addressed by Prof. Ian Williams of Queen's University Belfast (QUB), who outlined measures that the university had put in place over the past four years to address the issue of the number taking physics at third level.

The talk was followed by an in-depth discussion about possibilities for

collective action by colleges in the Republic of Ireland. These included a system of grants at government level to reward high achievers at Leaving Certificate level who take science courses, and consideration of attempts to raise the required points level for science courses. There was an acknowledgement of the potential difficulties in this latter option.

**Sheila Gilheany** Institute policy officer

## New book: Let There be Light

*Let There be Light: the Story of Light from Atoms to Galaxies*, Alex Montwill and Ann Breslin, Imperial College Press, 2008, £41.00 (hbk); £23.00 (pbk).

This book is devoted to the key role played by light and other electromagnetic radiation in the universe. Going one step beyond the popular level, it gives an overall view of the subject, often missed by undergraduate and postgraduate students as they try to assimilate the technical details of their courses. With its many novel features, it should be of interest to teachers and



*One book well worth a read.*

to general readers with some science background.

The book is richly illustrated, treats many topics in an original way on the basis of fundamental principles, and most chapters have a short feature about a central scientific figure.

Order online at [www.worldscibooks.com/physics/p521.html](http://www.worldscibooks.com/physics/p521.html).

# St Colman's enjoys party

St Colman's College, Fermoy, recently celebrated the launch of the world's largest scientific experiment, the inauguration of CERN's Large Hadron Collider (LHC). Spirits were high and the participants celebrated as only students can.

The venue was Room 10, where all college students were invited to a party lunch, complete with classical music, quantities of confectionery and chocolate (sponsored locally), an LHC raffle, a poster display on fundamental particles and on ATLAS (one of the LHC detectors), and a presentation on the structure and the underlying physics of the experiment followed by a short question and answer session.

Several staff members presided, including the college principal, Dermot Coakley who, earlier in the day, said that this was a defining moment for



St Colman's College students.

experimental physics globally.

Constructed in the same underground tunnel near Geneva as LEP (the earlier Large Electron Positron Collider), the LHC collides two intense beams of protons head on, each with energy of around 7 TeV. Data from these events should provide information about the searingly hot conditions almost immediately after the birth of the universe, on the matter/antimatter imbalance in the cosmos, on

the nature of matter and the existence of the long-awaited Higgs boson.

A few anxious first-year students were reassured on learning that their world was not going to come to an end, there would be no Armageddon, no Apocalypse and no mini black hole on this occasion. Unfortunately, it was explained that homework would still need to be done that evening.

The event generated a considerable amount of interest among the students, so much so that Room 10 was unable to accommodate everyone on the day. The poster display therefore had to continue for some weeks and students were referred to the Institute of Physics Visions 6 briefing document, "The Large Hadron Collider", at <http://visions.iop.org/>.

**David Rea** St Colman's College

## Make use of IOP members room



*A good place to relax and have a coffee: the members room at the Institute's headquarters. Prof. Colin Latimer (bottom), the Institute's honorary treasurer.*

Did you know about the members room in London? Ever find yourself foot weary in London and wondering where to have a cup of coffee and rest your legs? There is a lovely quiet, sunny, members-only room on the top floor of the Institute of Physics at 76 Portland Place (very close to Regents Park), where you can rest, read the newspaper or interesting science magazines, browse the internet and get a very reasonably priced cup of coffee and a muffin. Anyone else using the room will also be a member, so you might even find yourself striking up an interesting conversation. To use the room you just need to sign in and out at reception and obtain the door code.

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## Ireland gains Teacher Network coordinators

David Keenahan (Gonzaga College, Dublin) and Sue McGrath (Belfast) have been appointed as Teacher Network coordinators for Ireland. They join Paul Nugent who has been a coordinator since 2003.

Keenahan comes to the role with many years of experience of teaching physics, maths and applied maths. He is a graduate of University College Dublin and for his Masters degree (Trinity College Dublin, 2003) he explored the potential of datalogging in physics. He has produced several web resources for the Teachnet project ([www.teachnet.ie](http://www.teachnet.ie)), chiefly in the area of modern physics (for Leaving Certificate). He is particularly enthusiastic about the benefits of multimedia in communicating physics concepts to students. He is also a strong believer in the value of using the

"household" version of equipment whenever possible.

Initial areas of interest include support for Nugent in the Frontiers of Physics event at University College Dublin in September, a survey of resources that physics teachers use, and an evening course intended for recently qualified physics teachers. You can e-mail Keenahan at [dkeenahan@gmail.com](mailto:dkeenahan@gmail.com).

McGrath taught in a Belfast grammar school for 10 years before taking up the post of senior manager in charge of education in W5, Ireland's first hands-on science discovery centre in Belfast. Here, her prime focus as education programme leader was to develop workshops, demonstrations, shows and programmes for pupils, teachers and the general public. The aim was to provide



David Keenahan and Sue McGrath, the newly appointed Teacher Network coordinators.

opportunities for experiential learning, particularly in science and technology.

She is now a professional science communicator. Through her company, Science2Life ([www.sabp-web.co.uk/science2life/](http://www.sabp-web.co.uk/science2life/)), she delivers interactive science and engineering shows for all key stages and offers workshops for students and teachers. She works mainly in Northern and Southern Ireland, but over the past three years she has also worked in England, Dubai and Nigeria.

McGrath replaces Vida Given as Teacher Network coordinator for Northern Ireland and can be contacted at [suemcgrath@btinternet.com](mailto:suemcgrath@btinternet.com).

**The deadline for the April issue is 27 February 2009**