Editorial
The Summer Meeting and AGM
Writing Physics for a General Audience
Committee
Feedback
Joining the Group

Editorial
Averil Macdonald
Chair, Physics Communicators Group

The summer is almost here and I’m looking forward to our second Major Meeting and AGM on July 6th. There’s more information about the Major Meeting Programme in this newsletter and you will soon receive notification of the AGM. We would welcome nominations for committee membership. However please don’t think that only members of the committee are able to influence what the Physics Communicators’ Group does. I am also keen to hear from anyone who has ideas for events they would like to organise for members in their areas – and we can provide some funding too whether it’s for an informal get together or more specific training. At the Major Meeting we plan to have a session where people meet others from their regions with the aim of developing links and activities – an opportunity not to be missed.

The issue of writing for specific audiences is particularly important to Communicators and is dealt with very effectively in Jane Clark’s article here. We are always interested in receiving ideas and offers for short articles addressing a pertinent issue in Physics Communication. Please contact our Newsletter Editor direct if you have any thoughts or would like to put pen to paper.

And in case anyone hasn’t heard, our sister group, the Education Group, has dissolved to be replaced by the Education Forum – a virtual network for discussion and also with the aim of supporting those in education or with an interest in the education sphere. Log in to the TalkPhysics network to find out more.

Hoping to meet you on 6th July!
The Summer Meeting and AGM

The 2010 Major Summer Meeting and AGM for the Physics Communicators Group will be held on 6th July at 76 Portland Place, London. The strap line for the event is ‘Making Connections, Finding Opportunities’. The programme for the day offers a good mix of talks and networking opportunities. It also includes a workshop session where participants will explore the different approaches needed for specific audience types, ranging from school-age children to political influencers. At the end of the day there will be a “meeting your neighbours” session, which is designed to help members become more aware of others from their own local areas/regions. The event will give delegates plenty of time to hear the views and experiences of folk actively engaged in communicating physics and contribute ideas of their own.

The Annual General Meeting will take place as a short half hour session straight after the lunch break.

The meeting is open for non-members of the Group as well as members. Registration details and the full programme information can be found at: http://www.iop.org/Conferences/y/10/communicators/.

10.30 Registration and coffee/tea

11.20 “IOP’s physics in society programme”
Caitlin Watson of IOP

11.40 “Conquering the alphabet jungle - CRB, ISA, VBS - what does it all mean for STEM Ambassadors?”
Fiona Marchant of STEMNET

12.00 “The business of physics performance”
Wendy Sadler of ‘Science Made Simple’

12.40 Speed networking (40 minutes)
Laura Grant

1.20 LUNCH – light sandwich lunch, with fruit, fruit juice, water then coffee/tea

2.00 AGM
Reports by Chair, Treasurer, Webteam, Newsletter
Elections for new committee members or officers

2.30 Workshops
Delegates to choose one only:
“Can we excite interest which lasts after primary school?”
“Is it too late once they hit puberty?”
“Adult audiences – is there any point talking to them?”
“Can we really influence the influencers?”
“How do you make physics a fun day out for everyone?”

3.15 Tea/coffee available – workshops continuing

3.45 Feedback from workshop sessions

4.15 Meeting Your Neighbours – bringing people from each region together to decide what they want to do next

4.45 Meeting ends
Writing Physics for a general Audience

Jane Clark

There’s a lot of evidence that people learn a great deal from stories. Stories form a kind of social glue. Every little community, whether it is a physical society, a family or a football club, has its set of stories.

For example, a few years ago I took my father and uncle back to Lincolnshire for a school reunion. My 81-year-old Dad was the youngest there. What brought these respectable old gentlemen back to their youth was not the meal or the conversation about who knew a local girl called Margaret Roberts who later became famous, and so forth; but the way that during the tour of the old school, they found Jock’s Hole. Jock was the caretaker, and the hole was where he stored coal. With amazing vigour they all related stories about how they had locked some hapless boy in Jock’s Hole, and how said boy had thoroughly deserved this dastardly fate.

The stories of Jock’s Hole were the social glue that made a community out of these old Granthamians.

Stories are also easy to understand, and help people to buy into ideas. I happen to be Jewish, and know of a good Jewish boy from Nazareth whose stories, better known as parables, form the bedrock of a whole religion. You don’t have to believe the religion, but you can’t really argue with Jesus’ success. No doubt the parables as we know them are heavily edited and polished by later writers, but they are still stories. And of course the parables are part of the social glue of Christianity. They only really work that way for Christians. If you quote from parables in a synagogue, you are likely to get blank looks. Trust me, I have tried the experiment.

Where I’m leading you (via stories of my own, you may note) is toward the idea that you need to choose the right stories for your audience.

For example, when I wrote my book about the solar system, my target audience was “serious amateur astronomers”. They would obviously relate to anecdotes about misadventures with telescopes – how I dropped mine and damaged it, what a pain telescopes are to focus, how on summer evenings you get eaten alive by insects, and so on. I was actually trying to “sell” these amateur astronomers the idea that if they had A-level maths or thereabouts, they could use their own photographs to work out the orbits of the planets.

An extract from the book

When we see Venus at half phase, the angle EVS is a right angle. Thus if you can measure the angle ESV, you can calculate the relative distances of the Earth and Venus from the Sun using GCSE geometry. You measure this angle very close to sunset when the sun is no longer blinding (but never use a telescope or binoculars to look at the Sun), and Venus is just about naked-eye visible in the sky.

It was obvious to me that I would have been onto a loser if I had written the maths like a university lecture. So I interspersed the maths with humorous, often self-deprecating, little anecdotes. I even admitted in the preface that the book is a collection of my astronomy “war stories”.

Some of my attempts at humour fell flat because they were the wrong jokes for this community. For example, I chose my variable name for the angle to the Sun at midday to be phi, thinking I could have some fun with ‘phi noon’ and a few other silly plays on film titles. Astronomers are not generally film buffs, so it wasn’t funny to them. I also called my sub-chapter on measuring the rotation rate of Mars ‘A Mars day for work, rest and play’. They never used that advertising slogan.
for Mars Bars in the States, my main market, so it went straight over their heads. And no-one has yet commented about the Jewish jokes I slipped in. You have to choose your anecdotes and your lightening humour for your audience.

I also had to make some tough decisions about how much physics to include in the book. Some achievements of which I was quite proud were either only marginally relevant, or not within the A-level maths constraint. So I dropped them. When reaching out to specialists it is a terrible mistake to tell what Jews call the ‘ganze megilla’, a Yiddish phrase meaning roughly ‘the whole story’. If we say that someone told us the ganze megilla, we are not paying them a compliment. The non-specialists do not have to pass an exam. Keep it interesting, not thorough.

Jane Clark, Fine R and D Ltd

Committee
Below is a brief pen portrait of three more of our members.

Peter Edwards
I am an experienced science communicator who co-ordinates the outreach programme of the Ogden Centre for Fundamental Physics at Durham University. The aim of the programme is to use the science that we do in the North East to engage and enthuse school children and the wider community. In a former life I was a secondary school teacher, before undertaking research in various areas including gamma ray astronomy and astroparticle physics.

I now spend my time talking to anybody who will listen about physics. I toured the UK in 2006 delivering the Institute of Physics Schools’ Lecture ‘Gravity, Gas and Stardust’ and I provide regular talks for the Science Events for Schools Programme of the Royal Institution.

I hope my presence on the committee will bring with it a Northern perspective. I am particularly keen to explore how we might use social media tools like Twitter, Facebook and YouTube to communicate our science more effectively.

Keith Williams
My physics degree was a ‘straight’ degree with no trimmings such as astronomy. I initially worked in industry in Research and Development in areas such as acoustics, electronics and computing. It was only nine years later when I started teaching physics that I came to feel affection for the subject. I have taught in various schools, colleges and universities and was an ILT champion.

In 2001 I started Physics Concepts Ltd. and have been writing physics software for schools. For the last three years I have been involved with iTeach www.iteach.hiberniacollege.eu and my software is now used by the PGCE physics students in five UK universities. My particular concern is that I think a lot of children are subliminally put off physics by being taught by non-specialists, and I hope my involvement with iTeach and the IOP Communicators’ Group can help towards rectifying this.

Susan Cartwright
I am a senior lecturer in the Department of Physics and Astronomy at the University of Sheffield, currently researching in neutrino physics and teaching first and third-year astronomy courses.

I have extensive experience in outreach and communication: I am a regular speaker at local astronomical societies, give talks and host master classes for secondary school students, and was a Co-Investigator on a recently concluded EPSRC project to develop resources for physicists wishing to run activities in primary schools (http://www.iop.org/pips). I also run regular third-year projects getting undergraduate students into schools, developing and presenting physics-based lessons for various age groups.
I think particle physics, astronomy and cosmology are and will remain the areas of physics which most fascinate the general public and school children of all ages. I have a good general knowledge of both these fields and experience in communicating that knowledge to a range of audiences. This knowledge and experience, along with a commitment to public outreach and education, is what I hope to bring to the committee.

Feedback
The committee welcomes comments on the above and suggestions for other activities. Please contact the secretary Martyn Bull directly (martyn.bull@stfc.ac.uk 01235 445805) or through MyIOP (http://my.iop.org). The Group’s webpage is http://pcom.iop.org

Newsletter
If you would like to include something in future editions of this newsletter please send copy to Robert Fairbrother (r.fairbrother@kcl.ac.uk) or David Smith (david.smith@brunel.ac.uk).

Joining the Group
To join the group please log onto MyIOP (http://my.iop.org), navigate to the relevant Network for the Group and select "Sign up for this network". Alternatively please contact the membership department. All groups are free to join, however to join a group you must first be a member of the Institute. Details of how to join the Institute can be found at www.iop.org.

This newsletter is also available on the web and in larger print sizes

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