

## IOP London and South East E-Bulletin – September 2012

Welcome to the IOP London and South East Branch's first e-bulletin. The aim of this newsletter is to be a one stop shop keeping IOP members up to date with what the Branch is doing in their local area. A similar bulletin will be sent out on a bi-monthly basis full of information about lectures, activities and opportunities that members can get involved in.

### First things first!

There are a host of ways for you to find out about what your local IOP branch is doing.

On the web <http://london.iop.org>

On Facebook [www.facebook.com/ioplse](http://www.facebook.com/ioplse)

On Twitter [@IOPLSE](https://twitter.com/IOPLSE)

### London and South East Branch Committee

The Branch would like to thank Dr. Barbara Gabrys, who is standing down as Branch Chair, for all of her hard work over the last three years. Dr. Gabrys will be replaced as Branch Chair in October by Dr. Mark Telling. In addition, the committee welcomes back Alex McDonald and sees long-time member, Bob Boutland, become Branch Treasurer.

At present the position of Branch Secretary is still available. If you would like to get involved with the work of the Branch and become Branch Secretary or find out more about the role please contact [lee.crouch@iop.org](mailto:lee.crouch@iop.org).

### [IOP London and South East Branch Annual Dinner](#)

This year's annual dinner will be on the 21<sup>st</sup> November at the IOP's headquarters in central London. The dinner starts at 8pm and follows Prof. S. Swithenby's lecture on *The Working Brain*, which begins at 6.30pm.

The cost of the dinner (including wine) will be £36.00 per head and members are encouraged to bring along guests. Further details and booking forms can be found by clicking on the above link. We very much hope that you will be able to attend and look forward to meeting you.

### Lecture Series (September and October)

This autumn sees the continuation of the London and South East Branch's lecture programme. The IOP strongly encourages members to bring along guests to these free public lectures. Please click on the links below for further details.

#### [LONDON - 26 September, 6.30 p.m. - Prof. Peter Kalmus](#)

##### **The Value of Basic Physics**

Einstein did not invent the Satellite Navigation System, but without the use of both Special and General Relativity, the system would be wrong by more than 10 km per day! Paul Dirac, pondering on relativity and quantum physics, suggested the existence of antiparticles, which some decades later are being used medically for PET scans. Some of the many benefits of basic physics will be explored.

#### [KENT - 2 October, 7.30 p.m. - Prof. Mark Miodownik](#)

##### **Strange Materials**

Animate materials are coming! Communicating concrete, self-healing hip replacements and invisibility shields will all soon be with us. This talk covers the amazing science and engineering behind these innovative materials.

**HERTS - 3 October, 7.00 p.m. - Prof. Alan Davies**

**Science in the Cinema**

The special effects in today's blockbuster movies are so good that it can often be difficult to tell fact from fiction. Using a combination of film clips and the power of science, Prof. Davies will seek the truth about how accurate our favourite movies really are.

**MILTON KEYNES - 9 October, 7.30 p.m. - Prof. Nick Braithwaite**

**Plasma – as Heard on TV**

Most people know that plasmas produce light – the sun and plasma TVs being obvious examples. However, very few of us appreciate that plasma can also be used to produce sound. Aided by an audio demonstration, Prof. Braithwaite will trace the captivating history of plasma sound sources.

**LONDON - 17 October, 6.30 p.m. - Prof. Wade Allison**

**Radiation and Reason: a Fresh Look at the Effect of Radiation on Life**

Since the Cold War, radiation has received a bad press. Building on the arguments in his recent book, *Radiation and Reason*, Prof. Allison will show that the fear surrounding this fascinating phenomenon is not backed up by the facts. **[www.radiationandreason.com](http://www.radiationandreason.com)**.

**KENT - 23 October, 7.30 p.m. - Dr David S Berman**

**Theoretical Physics and String Theory**

Theoretical physicists around the world dream of finding a unified theory of fundamental physics. In his talk, Dr Berman will review this goal and discuss how string theory might one day achieve this objective.

**LONDON - 31 October, 6.30 p.m. - Prof. Monica Grady**

**Astronomy by Microscope**

Studying meteorites in the lab through a microscope can teach us about the formation of our solar system. In this lecture, Prof. Grady will describe how instruments designed to look at the very small can enhance our understanding of the stellar processes that have shaped the very big.

**Information about future lectures can be found on the Branch website (<http://london.iop.org>), in future e-bulletins or in the Branch's 2012 autumn lecture programme leaflet.**

**New Webpage for Retired Members**

A section of the London and South East Branch's webpage has now been dedicated to retired members (REMS). The webpage can be accessed through <http://london.iop.org> or by clicking on the link above.

On the page you will find details of a variety of trips and activities that are organised especially for retired members. If you would like to get involved please visit the site where you will find contact details for REMS' Secretary John Belling.

**Institute of Physics' Public Engagement Grant Scheme 2013**

The IOP actively encourages its members to communicate the exciting aspects and applications of physics to a wide audience.

Applications are now being invited for Round 1 of the 2013 public engagement grant scheme which is designed to give financial support of up to £1500 to individuals and organisations running physics-based outreach activities during 2013.

Applications must be submitted by midday **22 October 2012**. All projects funded through the 2013 grant scheme must be completed by 31 December 2013.

More information about the grant scheme, including application forms, full guidelines and examples of previously funded projects can be found by clicking on the above link.