

UNIVERSITY OF
BIRMINGHAM

School of Physics and Astronomy Community

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THE EPS COMMUNITY



Autumn/Winter 2013

Greetings

I'm writing to you from the NASA Kepler science conference in California, where yesterday I was one of the panel members of the NASA press conference that kicked-off the meeting. It's been a great year for our research on stars and exoplanets. I have had the pleasure of giving two lectures to Birmingham alumni on this work. Those lectures also celebrated the opening of the new University Observatory, which is being developed into a flagship scientific facility for the West Midlands, bringing together staff, our undergraduate students, local schools and the public. The School is immensely grateful to all alumni who contributed to this redevelopment, and who attended the lectures.

The end of September marked the beginning of the academic year. This has seen the arrival of a record number of new undergraduate students. It is always a busy time of year, and some of our third-year students are already taking part in commissioning the new observatory.

We very much hope you will also take the opportunity to visit our new observatory at one of our planned outreach events.

With best wishes

Professor Bill Chaplin
Professor of Astrophysics
Physics and Astronomy

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In this issue...

[News from the School](#)

[New staff](#)

[Your School needs you](#)

[Events taking place](#)

News from the School of Physics & Astronomy

Global ranking reinforces Birmingham's position as a world-class university

The University of Birmingham has made an impressive 15 place rise to 62nd in this year's QS World University Rankings, cementing its position in the top 100 universities globally and placing it 10th in the UK. **To read more [click here](#).**

The strange misalignment of Kepler-56 and its planets

Birmingham Astrophysicists have discovered a stellar system in our Galaxy where the spin of its 'red giant' star and the orbits of its planets are misaligned. Read more about the asteroseismic modelling work on Kepler 56 [here](#).

John Yarwood Memorial Medal, Prize and Exhibition in California



The John Yarwood Memorial Medal has been awarded to Richard Palmer, Professor of Experimental Physics and Head of the Nanoscale Physics Research Laboratory (NPRL), by the British Vacuum Council (BVC). The Medal accompanies the Senior Prize of the BVC; previous winners include Sir David King and Sir John Pendry. [Read more](#).

What has the Higgs Boson ever done for me?



Nobody working in the subject was really surprised that this year's Nobel Prize for physics was awarded to Peter Higgs; most of the speculation was over who he would share it with. Yet when Higgs and others first put forward their ideas in the mid-1960s, even specialists could have been forgiven for thinking that they were just plain crazy. On the basis of zero experimental evidence, they proposed a new field, completely different from anything previously known. Read Professor Paul Newman's comment [here](#).

Scientists analyse global Twitter gossip around Higgs boson discovery

A model of the spread of gossip on Twitter prior to the Higgs boson discovery announcement has been developed by Birmingham computer scientists. For the first time scientists have been able to analyse the dynamics of social media on a global scale before, during and after the announcement of a major scientific discovery. [Read more](#).

Discovery of Earth-like planet Kepler-78b raises hopes of more



Scientists have found the most similar planet to Earth so far discovered, which is only a little bigger and seems to be made of very similar materials. Birmingham's Prof Bill Chaplin, Head of the Kepler Mission, and his team transit method to determine the orbit and size of the planet Kepler-78b – where they watched the light given off by the parent star, Kepler-78, and noted how often and how much the light dims every time the planet passed in front of it. Read about Kepler-78b in [The Guardian](#) or learn more about their other discoveries and how they are ushering in a new era of astronomy [here](#).

The University of Birmingham opens its new telescope to the public



A new era of astronomy starts at the University of Birmingham this month, when students and researchers start to observe the night sky with a new state-of-the-art telescope located at the University's observatory on the outskirts of the city. The new telescope, which is the most powerful within 50 miles of Birmingham, will revolutionize the learning opportunities for students, and will also be available for the community and local astronomy groups to use. Read more about the observatory [here](#) or watch them on the [BBC News](#).

Irresistable Materials



Irresistible Materials is a spinout company from the University of Birmingham that began operations in 2010 and aims to commercialise novel fullerene materials for applications in the semiconductor industry. It was formed by the entrepreneur and alumnus David Ure together with the three academic founders: Dr Alex Robinson, Professor Jon Preece, and Professor Richard Palmer. [Dr. Robinson explains the team's research and the journey from idea to business.](#)

New staff in 2013

There have been a number of appointments in the School this term. [Read a summary of our new staff online here.](#)

Your School needs you...

Would you be able to share some of your time, expertise or connections to help Physics & Astronomy to succeed? There are many ways in which you can give a little back, from providing a career profile, to mentoring a student. [Details can be found online](#) and [email us](#) if you would like to get involved.

Events taking place shortly...

School events

21/11/2013: Direct observation of complex dynamics in optical cavities by Professor Stephen Creagh, University of Nottingham

1:45-3pm, Theory Library Room 415b, Physics East Building (R10), University of Birmingham

04/12/2013: Stellar and solar magnetic fields by Dr Matthew Browning, University of Exeter

4-5pm, Small Lecture Theatre S06, Poynting Building (R13), University of Birmingham

11/12/2013: Searches for New Physics with Top Quarks at ATLAS by Dr James Ferrando, Glasgow University

1:30-2:30pm, Small Lecture Theatre S06, Poynting Building (R13), University of Birmingham

15/01/2014: Probing the Higgs Boson Properties at ATLAS by Dr Ludovica Aperio Bella

1:30-2:30pm, Small Lecture Theatre S06, Poynting Building (R13), University of Birmingham

22/01/2014: Philosophy of science by Professor Harvey Brown, University of Oxford

4-5pm, Small Lecture Theatre S06, Poynting Building (R13), University of Birmingham

05/02/2014: Search for a Wrong-Flavour Contribution to $B_s \rightarrow D_s \pi$ by Dr Matt Williams, University of Warwick

1:30-2:30pm, Small Lecture Theatre S06, Poynting Building (R13), University of Birmingham

05/02/2014 New thinking in Quantum Mechanics by Professor Terence Rudolf, Imperial College

4-5pm, Small Lecture Theatre S06, Poynting Building (R13), University of Birmingham

For more information and other lectures in this series visit our website <http://www.birmingham.ac.uk/schools/physics/news/physics-astronomy-seminars-all.aspx>

EPS Inaugural Lecture Series

The EPS Inaugural Lecture series celebrates the promotion of leading academics across the College of Engineering and Physical Sciences.

27/11/2013 [Gravitational waves and the unheard broadcast of the violent universe](#)

5:15-7pm, Room 117, Physics West Building (R8), University of Birmingham

27/02/2014 [Professor Shuang Zhang's Inaugural Lecture](#)

5:15-7pm

For more information on other lectures in the EPS Inaugural Lecture Series please visit www.birmingham.ac.uk/eps/inaugural

University events

09/12/2013 [University Carol Service](#)

6:15-7:30pm, on campus

This annual event, organised by University Chaplains and the Department of Music, is a joyful Christmas celebration for staff, students and families.

11/12/2013 [Festive Drinks at the Birmingham Frankfurt Christmas Market](#)

6-9pm, Victoria Square, Birmingham City Centre

Join fellow alumni for a festive drink at the largest authentic German market outside Germany and Austria.

12/12/2013 [USA Christmas Gathering in New York](#)

6:30-9:30pm, Revival, New York, USA

You are invited to the annual alumni holiday party. This is always the busiest get together of the year and we are looking forward to another fun evening.

14/12/2013 [USA Christmas Gathering in California](#)

5:30-7:30pm, California, USA

You and your partner are invited to join fellow alumni at a winter gathering cocktail party with UK University alumni from Birmingham, Nottingham and Sheffield.

27/03/2013 [Leaders of Tomorrow Reception](#)

6:30-8pm, London

Meet with current student recipients of the Access to Birmingham (A2B) scheme and students involved with the Academic Enrichment Programme at this drinks and canapés reception.

Do we have the right details for you?

According to our records your current business details are as follows: **Position** at **Organisation Name**. If this is not correct, please visit [your.bham](#) or email alumnioffice@contacts.bham.ac.uk.

You have received this email from the University of Birmingham because we believe that it is relevant and of interest to you. If you would like to opt-out of receiving information from your College, School or Department by email, please opt-out by visiting [your.bham](#), emailing alumnioffice@contacts.bham.ac.uk, or telephoning +44 (0)121 414 2773 / 2744 / 4724. In order to further tailor the communication we send, all emails are tracked and processed; further information regarding our use of data, is available by looking at our [data protection statement](#)