

UNIVERSITY OF  
BIRMINGHAM

# School of Physics and Astronomy Community

Part of  
**THE EPS COMMUNITY**



## Summer 2013

### Greetings

I finally seem to be coming up for air after what has been a busy but very successful academic year for the School of Physics and Astronomy. The number of students wishing to study physics in Birmingham continues to soar in the wake of the School's commanding position in the newspaper league tables as well as the high profile discoveries made by academic staff which are attracting media interest. Those highlights include the discovery of the Higgs boson (where Birmingham staff members played a significant role - particularly with Prof Dave Charlton now leading the ATLAS experiment), the discovery of new extrasolar planets, and the achievement of Bose Einstein condensation in the cold atom labs. Students are benefitting from refurbished undergraduate teaching laboratories (including new developments at the observatory) and, even with the increased numbers, we still maintain a weekly academic tutorial for students in groups no bigger than four. So, while there is much within the School that you would recognize from your time with us, the discipline moves on and so do our facilities and research activities. I hope you find the newsletter of interest, but more than that, are motivated to come and visit us - perhaps at one of our alumni events in the coming academic year.

With best wishes

### **Professor Andy Schofield**

Professor of Theoretical Physics and Head of School  
Physics and Astronomy

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## News from the School of Physics & Astronomy

### Congratulations to all our recent graduates



Congratulations to everyone who graduated this summer and welcome to the alumni community! Graduations this year fell at the beginning of the heat wave and graduands enjoyed a beautiful summer's day to shake hands with Professor David Eastwood and receive their degree certifications. **To read more and see photographs of the day [click here](#).**

### Physics at Birmingham continues to rank highly in league tables

**theguardian** Physics at the University of Birmingham continues to rank highly in the UK with fourth in the [Guardian's 2014 University League Table](#) and eighth in the [Complete University Guide](#).

### Birmingham joins the world's largest nuclear physics research facility

Researchers from Birmingham will have access to the most impressive and advanced nuclear physics research facility in the world as the UK has officially become part of a €1.6 billion international project that will be to nuclear physics what CERN is to particle physics. The Science and Technology Facilities Council signed an agreement that makes the UK an associate member of the Facility for Antiproton and Ion Research currently under construction next to the GSI Helmholtz Centre for Heavy Ion Research in Darmstadt, Germany. [Read more.](#)

### Student observations of Comet Ison herald a new era at West Hills Observatory



Physics undergraduates have made history by capturing an early glimpse of the eagerly anticipated Comet Ison during the last ever observation at the University's West Hills Observatory before a major upgrade project begins. [Read the full story here.](#)

### Stargazing Live with AstroSoc



In early January AstroSoc teamed up with the BBC to host two large events on campus to supplement this year's broadcast of Stargazing Live. These events were among several organised by the BBC throughout the country, all aimed at enabling members of the public to take part in stargazing and astronomy for themselves after seeing the television shows. [Read more.](#)

### Particle physics at the precision frontier



The recent discovery of the Higgs boson candidate, which made international headlines and was named breakthrough of the year 2012 by Science magazine, is yet another spectacular success of the Standard Model (SM) of particle physics describing sub-atomic constituents of matter and their mutual interactions. However SM has major limitations. Dr. Evgueni Goudzovski, Birmingham Fellow, explains these limitations and how this affects his work. [Read more.](#)

### Cosmic giants shed new light on dark matter



Astronomers at the University of Birmingham, Academia Sinica in Taiwan, and the Kavli Institute of Physics and Mathematics of the Universe in Japan, have found new evidence that the mysterious dark matter that pervades our universe behaves as predicted by the 'cold dark matter' theory known as 'CDM'. [Read the full story here.](#)

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### Class of 1972 Physics reunion



Allen Kaye and his classmates from 1972 Physics celebrated 41 years since graduating by hosting a reunion on campus in May 2013. [Read their story.](#)

## Physics professor recognised in Queen's Birthday Honours



[Professor Mike Gunn](#), Professor of Theoretical Physics, has been awarded an MBE for services to Physics. [Read more.](#)

## Have you joined the School LinkedIn Community yet?



An online community for alumni, students, faculty and friends from the School of Physics & Astronomy, the LinkedIn group provides you the opportunity to engage in conversation, find former colleagues, keep up to date with changes in the School and debate with academics. [Join this growing community today.](#)

## Transforming the West Hills Observatory



Circles of influence

When you look up at the sky on a clear night do you ever ask yourself: how many of the twinkling stars have planets, like the planets orbiting our own sun? At Birmingham we are answering those questions thanks to the West Hills Observatory. The Observatory is undergoing renovations to turn it into a flagship scientific facility, starting with the replacing of its 30-year-old telescope. **Find out how you can help [here.](#)**

## New staff in 2013

There have been a number of appointments in the School this year. **Read a summary of our new staff and their research interests [online here.](#)**

## We would love to hear from you

Everyone has a story to tell and we would love to hear yours. What have you been up to since leaving the School of Physics & Astronomy? Have you had any successes or challenges that you would like to share with fellow graduates? Do you have any particular words of wisdom you would like to pass on to graduating students?

Your stories help us to promote your School, communicate with prospective students and complete the history of this institution. Please fill in the [online form](#) or email us at [eps-community@contacts.bham.ac.uk](mailto:eps-community@contacts.bham.ac.uk), we would love to hear from you.

## 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.**

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## Events taking place shortly...

[Future Talks and Seminars including:](#)

- 02/08/2013 – Mesoscopic atomic ensembles for quantum information, Ilya Beterov
- 26/09/2013 – Title to be confirmed, Professor Keith Blow (University of Aston)
- 02/10/2013 - Search for Magnetic Monopoles at the ATLAS Detector, Sergey Burdin (Liverpool University)
- 09/10/2013 – Review of CHARM2013, Andy Chisholm
- 11/10/2013 – Title to be confirmed, Dr. Adrian Hillier (ISIS Facility Muon Source STFC)
- 16/10/2013 – The muon g-2 experiment, Steve Maxfield (Liverpool University)
- 17/10/2013 – Title to be confirmed, Dr. Graham Worth
- 08/11/2013 – Magnetic cooling: Coupling magnetic and structural phase transitions in order to improve performance, Dr. Kelly Morrison (University of Loughborough)

### [Undergraduate Open Day](#)

**14/09 and 26/10/2013**

Visit the School of Physics and Astronomy, meet our staff and students and learn about our degrees.

### [Birmingham Heroes Lecture: Music of the Stars with Bill Chaplin](#)

**17/10/2013**

Look out for details on the Physics Community webpage.

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## 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](http://your.bham) or email [alumnioffice@contacts.bham.ac.uk](mailto: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](http://your.bham), emailing [alumnioffice@contacts.bham.ac.uk](mailto: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](#)