

## Sir Nevill Mott Lecture Drinks Reception 2011

If you have any enquiries or any news or events you would like covering in a future newsletter please contact Victoria Webster on:

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Thank you and we hope you enjoyed this issue.



Various staff and guests enjoying the drinks reception at Burleigh Court following the Mott Lecture.



We would like to wish everyone a very....



# PHYSICS DEPARTMENT NEWSLETTER

## Sir Nevill Mott Lecture 2011

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The annual prestigious Mott Lecture was held on Wednesday 16th March 2011 and was given by Professor Victor Petrashov from the Department of Physics, Royal Holloway, University of London.

perconducting 'mirrors' that reflect electrons via an unusual Andreev mechanism. Interference devices created with such mirrors expose the quantum properties and allow fast ultra-sensitive magnetometry and real time measurements of quantum circuits. He will also discuss the current state-of-the-art and some of the present challenges of metallic nano-fabrication).



Prof M Barstow, Prof V Petrashov & Prof Kusmartsev

In 1995 Sir Nevill Mott visited the Physics Department and presented a lecture

entitled '65 Years in Physics'. The lecture was a great success, and Sir Nevill kindly permitted his name to be associated with an annual lecture series.

The lecture was well attended by both staff and students of the university with a few members of the general public. The title of the lecture was 'Metal: a box of surprises' (Abstract: The general properties of metals are well known, but at the nanoscale they show spectacular new phenomena that provide many opportunities for the exploration of fundamental physics and for potential practical applications. These properties are rooted in quantum mechanics, providing insights and new physics fitting to the lifework of Sir Nevill Mott.

The Mott Lecture is held each year in honour of Sir Nevill Mott and is given by an eminent Physicist whose work is related to his research.

This lecture was recorded using the lecture capture facility but is currently unavailable due to technical problems. An announcement will be made once it is available.

### Dates for your diary:

- Summer Graduation, Tuesday 26th July.



Sir Nevill Mott

Professor Petrashov will give an overview of experiments with su-

Please see the back page for more photos.

## National Student Survey & Feedback

The Department works best when students are fully engaged with their studies—not just lectures, labs & tutorials, but also providing valuable input into their degree programmes & how these can best meet their needs. This input can be a question in a lecture, an informal chat in the corridor, comments on module & programme questionnaires, the Staff Student Committee, or the National Student Survey.

We are grateful for the many thoughtful & constructive comments on module questionnaires, which are returned to lecturers for their response. While we cannot accommodate all requests, such feedback has often helped to improve the student experience. For example, joint honours programmes have been restructured to improve the order of delivery, coursework has been introduced into many modules & many more resources are available on Learn. The National Student Survey has also helped: while the Department, & the University, received very favourable responses—indeed in early days of the survey this Department had the happiest students in the country—the survey did identify a lower level of satisfaction with the level of feedback. As a result, students now receive generic feedback on exams in many modules throughout the university.

Finalists in UK universities have been surveyed every year since

2005. This National Student Survey is usually open from February to April. The survey has 22 questions on teaching, assessment & feedback, support, organisation, resources, personal development & overall satisfaction, as well as space for comments, which will be returned (anonymised) to the Department in the autumn. Many thanks to those who have already responded this year, or have done so in previous years. If you have been asked to respond & have not yet done so please do so, for example by the link on Learn. Some students who are not yet finalists may be included (for example, if they have taken a leave of absence or have repeated a year); this will be their only chance to respond, as they will not be resurveyed in their final year. Students in Parts A & B (and MPhys Part C) should get this opportunity in later years. If you have any concerns, please, as always, let the Department know.



## Congratulations



Hanaa Hassan passed her PhD and will graduate in the summer graduation ceremony. Well done Hanaa and good luck for your future working career.



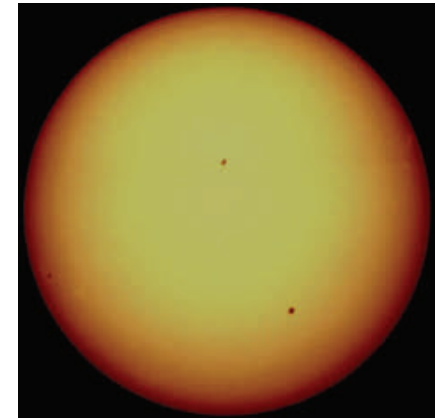
## Observatory Images



Jupiter: 2200 frames stacked at f-20 (magnification)



20,000 of sub-frames of 1/160s stitched together. The vast amount of data was obtained by capturing over 20Gb worth of video footage. Shutter vibration is completely eliminated in video feeds.



The sun: 3x3 mosaic of the region, taken using the 8" telescope (with solar filter applied). Students this year will be the first to capture this image via a video feed, thus improving overall image quality.



Saturn: 2600 frames stacked at f-40 (magnification)



Real Fisica

## Fisica's Flourish Fizzles In Final! University Six Aside Competition Report

Real Fisica

The Physics Department's six aside football team Real Fisica had an outstanding competition this year in the university inter departmental six aside tournament.



The teams performance gradually improved as the tournament progressed from a disappointing 1-1 draw with the Coffin Dodgers, to a fine victory against Half Volley, the England Volleyball team!

This meant that Real Fisica claimed third place in their league to go through to the quarter finals where they played Sports Science. The team played very well putting in a strong performance gaining a well earned 2-1 victory with goals from Toby and Zayan.

In the semi final Real Fisica were drawn against old adversaries Sports Technology, who they lost to last year in a nail biting penalty shootout. This year was different however, Fisica got off to a great start when top scorer with eight goals and Golden Boot for the competition, Toby Maw fired



home to take an early lead.

Fisica then sat back with a well organised formation and stifled any chances that came Sports Tech's way. Indeed when they did manage to break through, goalkeeper Feo Kusmartsev made some sterling saves, non more so than a point blank block from an onrushing Sports Tech player in the dying seconds of the game.

So onto the final with Fisica matched against Sports Development Centre and an expectant crowd willing Fisica on. A victory looked on the cards when Doug Green slotted the ball home after a good through ball.

But it was not to be, even though the team worked hard to close the opposition down, non more so than the ever hardworking Tom



Hewitt. Fisica finally gave way to incessant pressure from the opposition. Their strong team scored some fine goals, giving them a well deserved 4-1 victory. Fisica were disappointed but very pleased that they had such a excellent tournament.



## New Baby



We would like to congratulate Mike and Susan Forrester on the birth of their second child, baby girl Tullia Siusaidh. Her first name means peaceful one (Gaelic) and the second name is Scots for Susan (pronounced Siusae). We look forward to meeting her.

## Grant Success

Congratulations to Dr. Alex Zagoskin, Dr. Mark Everitt, and Dr Sergey Savel'ev who won a grant from the John Templeton Foundation (JTF) in support of their project entitled "Quantum reality as the sum of all constraints". The grant allows them to hire a post-doctoral researcher and to cover travel and conference expenses for the team.



Dr Alex Zagoskin



Dr Mark Everitt



Dr Sergey Saveliev

## Invitation

This is an invitation to all finalists and your guests. The department is holding a strawberries and cream reception in the department on the morning of graduation (Tuesday 26th July) from 10.00am onwards. If you would like to attend this event please inform Maureen McKenzie as soon as possible so catering can be arranged.

We hope you can make it.



## Observatory Opening

Following on from the success of the official observatory opening back in October, a second open evening has been planned for university employees.

The event is on Wednesday 6th April and it follows many calls and emails of interest about the observatory from university staff.

The evening will allow for 50 employees to visit the observatory site over a two and a half hour period with staggered times. Staff will be on hand to guide visitors through the process of observing the night sky through our 16inch and 8inch reflecting telescopes. Weather permitting some major objects in the heavens will be observed.

Due to such popular demand the event is now fully booked with employees attending from an array of departments and a second date of Wednesday 12th April has been added.

Lets pray for good weather

