

Weekly Bulletin

Research School of Physics and Engineering



Volume 36 Number 24

25 June – 1 July 2010

FROM THE DIRECTORS OFFICE

The school would like to congratulate **Prof Mark Knackstedt**, Applied Mathematics, on being the joint winner of the [New Frontiers of Hydrocarbons Prize](#), given annually by the Italian resource company ENI and valued at 300,000. This is the most prestigious energy prize for research in the world. The ENI awards are designed to encourage a better use of energy sources, promote environmental research and shine the spotlight on new generations of researchers. Prof Knackstedt travelled to Rome this month to collect the prize. During his visit he was invited to speak at the world's oldest science academy. Founded in 1603, Accademia dei Lincei counted Galileo among its earliest members. In awarding Prof Knackstedt the prize, the judging panel praised his "pioneering research into the location and characteristics of oil-fields, grounded on high resolution and 3D images of rock structures."

Precipitated by Prof Brenton Lewis' upcoming retirement Prof Stephen Buckman will take over as Head of Department of the Atomic and Molecular Physics Laboratories on 1 July 2010.

JOB OPPORTUNITY

The position for a School OH&S Officer is now open to internal applicants. Interested technical staff are encouraged to apply. Please see the internal jobs website.

NEW SCIENCE HUB TO DOUBLE CHEMISTRY CAPACITY

Construction work on a new science precinct at the ANU has been given the seal of approval by the Minister for Innovation, Industry, Science and Research Senator Kim Carr visited the building site of a new Chemical Sciences Hub at ANU on Monday 21 June. The project forms part of a \$240 million science infrastructure renewal project

under way at the University's Banks Precinct. Sources of funds include \$90 million from the Commonwealth Government's Education Infrastructure Fund and another \$150 million from the ANU Sciences Transformation Project. Once completed, the Chemical Sciences Hub will create 15 additional high-tech positions, including several apprenticeships, and lead to the creation of 30 new permanent academic and professional positions.

SECURITY

As a precautionary measure - typical of all large workplaces, it is recommended that all staff ensure their offices, laboratories and workstations are securely locked during desk absences such as morning/afternoon tea breaks, lunchtime and in the evenings. You are encouraged to secure all office files, portable office equipment such as laptops, USBs, cameras and personal effects.

JAG USER GROUPS

Your representatives for the new JAG User Groups for this year are listed below. Members of the school community are requested to put their suggestions/feedback/issues through these representatives please.

Prof Rob Elliman – Finance/Research Mgmt
Prof Stephen Buckman – Human Resources
Prof Neil Manson – Postgraduate Students
Ms Laura Walmsley – Undergraduate Students
Prof Ken Baldwin – Marketing & Communic
Prof John Howard – Communications and IT

NEW STAFF MEMBERS

EME would like to welcome Dr Jiandong Ye who will be working with Professor Jagadish.

PRL would like to welcome Dr Michael Fitzgerald, who is commencing a three year postdoctoral fellowship next week. Dr Fitzgerald will be working on a project led by Dr Matthew Hole and Professor Robert Dewar on an ARC project, "Burning Plasmas: resolving energetic particle physics for ITER".

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VISITORS

PRL (SP3) would like to welcome, **Dr Sudeep Bhattacharjee**, Associate Professor, Department of Physics, Indian Institute of Technology Kanpur. Dr Bhattacharjee, a recipient of an Endeavour Award, will be working with Professor Rod Boswell and Associate Professor Christine Charles for the next six months on Particle in Cell (PIC) simulations of low pressure plasmas and double layer plasmas; SP3 also welcomes **Dr Scott Baalrud** who is here on a USA National Science Foundation Grant for 7 weeks. He will be working on the PIC simulations and on the analytical modeling of double layers.

PRL (PTM group) would like to welcome **Dr Sergei Sharapov**, UK Culham Centre for Fusion Energy as a Visiting Fellow from July 4 - 28. Dr Sergei Sharapov is a plasma physicist, and world renowned expert on energetic-particle-driven eigenmodes in fusion plasmas.

2010 DEVELOPMENT EVENT

Thursday 29 July 2010, 6.00- 6.45pm

Leonard Huxley Theatre

How Mathematics and Physics Got Together Again
by Nobel Laureate Professor Chen Ning Yang

This is the first of many School Development events that we plan to hold in the next few years to assist with affinity building among staff, students, donors, alumni and friends of the School. We encourage you to attend the seminar and support Development at RSPE.

WINTER SCHOOL

Wednesday 7- Friday 9 July

RSPE Seminar Room, Oliphant Building

The ANU, supported by AINSE, the Australian Plasma Fusion Research Facility, and the Culham Centre for Fusion Energy, will be organising a Winter School on Industrial and Fusion Plasmas. This mini-school spans fundamental plasma processes through to the burning plasma physics of fusion power. Three lecture series will be held, see

LCD screen or <http://prl.anu.edu.au/winterschool2010> for further details.

SCHOOL SEMINAR PROGRAM

Thursday 1 July 2010 - 4.00pm

Leonard Huxley Lecture Theatre

Beauty of integrability and quantum criticality

by Dr Xiwen Guan

Department of Theoretical Physics

Drinks and light refreshments will be provided in the RSPSE Link Tea Room after the Seminar.

SCHOOL SEMINARS

Friday 9 July 2010 - 2.00pm

Theoretical Physics Seminar Room

Le Couteur Building (L3.17)

Towards Reconfigurable Optical Metamaterials: Nanoparticle Self-Assembly and Self-Alignment in liquid crystals by Professor Ivan I. Smalyukh

Department of Physics, Renewable and Sustainable Energy Institute, Liquid Crystal Materials Research Center, University of Colorado

Thursday 1 July 2010 - 11.00am

Psychology Building 39 (G6)

Pumping an Atom Laser by Mr Graham Dennis
PhD Student, Department of Quantum Science

SOCCER WORLD CUP

A general staff lunch was held recently to celebrate the Soccer World Cup. A small set of goals was brought in and a penalty shoot out competition was held in the Le Couteur basement. The winner of this event was Maryla Krolikowska for the skills she showed not only as a goal-scoring striker but also as a goal-keeper. Paula Micallef won the prize for best dressed football supporter/player. Thanks to all who helped make it a success.

HERB ZEILINGER

Further to the note in last week's bulletin please find the link here for further photos of Herb
<http://people.physics.anu.edu.au/~jhw112/>