

## Weekly Bulletin

Research School of Physics and Engineering

Volume 38 Number 32 17<sup>th</sup> – 24th August 2012

#### FROM THE DIRECTOR'S OFFICE

#### **DEPUTY DIRECTOR (EDUCATION)**

Professor John Close will be the new Deputy Director (Education). John has been closely involved in all aspects of Physics Education since joining what was then The Faculty of Physics in 1998 (and being an Honours graduate of the ANU Physics program in 1984). He will take up the position from September 1 and have an important period of overlap with the current DDE, Anna Wilson, who will be leaving the School in Mid-October.

#### **CONVENOR. PHOTONICS PROGRAM**

Dr Jong Chow from DQS will be the new Convenor of the Photonics Program, which has been run so successfully for many years by John Love. Jong has a strong research and commercial/industrial background in Optics and Photonics, and has also lectured in the Optics courses in the Physics program over the past 4-5 years. Jong will commence this position at a date to be determined later in the year.

#### **DIRECTOR'S COLLOQUIUM**

# Chronology in the first few hundred million years of the Solar System revisited

#### **Professor Michael Paul**

Racah Institute of Physics

Hebrew University, Jerusalem, Israel

12:00pm, Thursday 6 September

Leonard Huxley Theatre

#### **WELCOME**

#### **Nuclear Physics**

Dr Kouichi Hagino, Department of Physics, Tohoku University, Japan, is visiting the Department of Nuclear Physics in the period 16 - 22 August to undertake collaborative research with Professor Nanda Dasgupta and the Reaction Dynamics Group.

#### **SCHOOL SEMINAR**

#### Surface Coating Nanoparticles for Medical Use

**Dr. Ross Stephens** 

**Applied Mathematics** 

4pm, Thursday 23 August

Leonard Huxley Lecture Theatre

The event details and abstract can be found on the RSPE website <a href="http://physics.anu.edu.au/events.php?EventID=73">http://physics.anu.edu.au/events.php?EventID=73</a>

Refreshments will be held in the RSPE Tea Room after the Seminar (around 5pm) ALL WELCOME

#### **DEPARTMENTAL SEMINARS**

#### Nonlinear Centre

Opto-mechanical interactions in nanophotonic structures

PhD Mid-term Seminar

Ms Yue Sun

PhD student, Nonlinear Physics Centre

11:00 am Tuesday 21st August

Link Building Seminar Room, Oliphant Building

Quantum dynamics of ultra-cold Bose gases with classical fields

#### **Associate Prof Matthew Davis**

School of Mathematics and Physics, University of Queensland

11:00 am Thursday 23<sup>rd</sup> August

Seminar Room, Oliphant Building

#### Laser Physics Centre

Generation of High Energy Density by fs-laser induced micro-explosion confined inside transparent and opaque solids

Eugene G. Gamaly

Laser Physics Centre

11:00 am, Thursday 30<sup>th</sup> August

**Link Building Seminar room** 

#### Space Plasma, Power and Propulsion Laboratory

"Hands on" lectures on Music Harmony

**Professor Christine Charles** 

Space Plasma, Power and Propulsion Laboratory

Fridays, 1.15 to 1.45 pm

Room 325 Oliphant Building

#### STAFF MOVEMENTS

#### Theoretical Physics

**Professor Murray Batchelor** will be absent from 18 August to 2 September. He will give a plenary talk at the International Colloquium on Group-Theoretical Methods in Physics, Nankai University, Tianjin, China.

**Prof Vladimir Bazhanov** will be acting head from 18 August to 2 September.



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#### Atomic and Molecular Physics Laboratories

Emeritus Prof. Erich Weigold will be overseas for the period 21 August to 5 September. He will give the opening Plenary Talk at the Second International Symposium on Electron Momentum Spectroscopy (ISEMS2) in Brussels, Belgium. He will also give an invited talk at the International Conference on Many Particle Spectroscopy of Atoms, Molecules, Clusters and Surfaces, August 27 to September 1, being held in Berlin.

**Prof. Anatoli Kheifets** will be overseas from 19 August to 21 September. He will present invited talks at the same International Conference on Many Particle Spectroscopy of Atoms, Molecules, Clusters and Surfaces and at ISEMS2 as well. He will also present a hot topic to the International Conference on Electron Spectroscopy and Structure in Saint Malo, France. Between the conferences, Prof. Kheifets will be carrying out collaborative work with the group of Atomic and molecular physics of unbound systems at the Universidad Autónoma de Madrid.

#### **SCHOLARSHIPS**

### The Dunbar Physics Honours Scholarship GO BEYOND THE LAB

Do you want to study physics or become a physicist?

- up to \$25,000 package including accommodation assistance
- mentoring and networking program
- diverse research options
- largest physics program in Australia
- travel grants to discuss interests
- open to Australian and New Zealand students

A new scholarship has been established at the Research School of Physics and Engineering to promote physics education. The Dunbar Physics Honours Scholarship has been established in memory of the late Professor Noel David Dunbar who was the foundational Professor of Physics at the ANU from 1958 to 1968 and Deputy Vice-Chancellor of ANU from 1968 to 1977.

Ten scholarships with a stipend of up to \$10,000 and an additional living and accommodation allowance of up to \$15,000 will be available. Scholarships will be awarded based on academic merit. On-campus accommodation for interstate and New Zealand recipients will be guaranteed and accommodation support for local students will be considered.

Travel grants are available for potential students to visit RSPE to discuss interests and diverse range of research options.

To know more about the scholarship, contact:

T: +61 2 6125 1315

E: research.students@physics.anu.edu.au

W: physics.anu.edu.au/education/dunbarscholarship

### SCHOLARSHIP FOR SPACE PLASMA, ASTRONOMY AND ASTROPHYSICS

#### New Scholarship - Call for Application

The Space Plasma, Astronomy and Astrophysics scholarship has been established to aid postgraduate students undertaking research in Space Plasma, Astronomy or Astrophysics. The scholarship could be used towards travel, acquiring of equipment or collaboration activities as required.

The closing date for application is 30th August 2012 at 5nm

Value: The value of the scholarship is \$4,000 **Number on offer:** One or two per year

**Eligibility:** 

Students currently enrolled in a graduate research program (Doctor of Philosophy or Master of Philosophy) in the College of Physical and Mathematical Sciences are eligible to apply.

#### **Further Information:**

For the Scholarship Terms and Conditions or further queries, contact E: <a href="mailto:research.students@physics.anu.edu.au">research.students@physics.anu.edu.au</a>

#### **US DEVELOPMENT AND MENTORING PROGRAM**

An opportunity for high-potential early and mid-career research staff to gain targeted exposure to North America funding sources and prospective partners is available now.

The North American Liaison Office will provide matching grants of up to \$5000 and in-kind support

Up to 6 College-identified high potential staff will participate in the program, which will bring them to the United States for a targeted visit of up to 2 weeks designed by NALO and the Research Services Division in close consultation with the staff member and key stakeholders/support areas. The program will include a pre-visit briefing and post-visit debriefing and follow-up, and will also seek to match the staff member with a mentor drawn from the US-based alumni and friends community.

#### Application closing date: 24th August 2012

See: http://northamerica.anu.edu.au/anucommunity/supporting-researchers/us-development-andmentoring-progam/

#### APPLIED MATHS FINALISTS IN EUREKA PRIZE

As part of a group entry in this year's Rio Tinto Eureka Prize for Commercialisation of Innovation the Tomography Group in Applied Mathematics, School of Petroleum Engineering at UNSW and Digitalcore Pty Ltd have made it to the finals with two other nominees

(<u>http://eureka.australianmuseum.net.au/news/2012-finalists-announced</u>).

The award will be announced on Tuesday 28th August.



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#### <u>CANON INFORMATION SYSTEMS RESEARCH</u> AUSTRALIA (CISRA) PRIZE 2012

An award will be presented, on Founder's Day (12 October 2012), to a student who is author (or joint author) of a research paper seen by the Selection Panel as making a substantial and original contribution to scholarship in physics. Eligible candidates for the Award will have made the major contribution towards the research.

Nominations for the Award may be made by Heads of Departments, supervisors and students.

#### To be eligible for the Award:

- The paper must have been published, or accepted for publication, in a recognised refereed journal during the year prior to the Award, ie between 1 July previous year and 1 September in the year of the Award (for 2012 this is 1 July 2011 to 1 September 2012).
- The paper must be in English.
- Students must be enrolled as postgraduates in Physics for the majority of the year of the Award.
- A one-page justification must be submitted stating the significance of the paper. The content of the justification should be suitable for an audience not necessarily specialists in the field.
- The student's contribution to the paper should be clearly stated.
- Four copies of both the paper and the one-page justification should be submitted to Liudmila Mangos, HDR Student Coordinator, RSPE (Tel: x51315) by 7 September 2012. Alternatively, the documentation could be e-mailed to Research.students@physics.anu.edu.au

Deadline for receipt of papers is 7 September 2012.

#### **SURVEY ON CAMPUS SUSTAINABILITY**

ANUgreen is seeking input and feedback from all staff and students about sustainability projects on campus.

The University's award-winning environmental management program is running a survey for staff and students to have their say on sustainability at ANU.

The online survey, which takes approximately five minutes to complete, is available until noon on Monday 20 August 2012. Every 10<sup>th</sup> respondent will be rewarded with an ANUgreen KeepCup. We appreciate your participation!

Participation is voluntary and anonymous; any information provided will be used only for research purposes.

To take part, visit:

For staff: https://www.surveymonkey.com/s/ANUstaff

For students: <a href="https://www.surveymonkey.com/s/ANUstudents">https://www.surveymonkey.com/s/ANUstudents</a>

For more information, contact klaus.arildslund@anu.edu.au