

# Weekly Bulletin

Research School of Physics and Engineering



**Volume 34 Number 46**

**28 November – 4 December 2008**

## **FROM THE DIRECTOR'S OFFICE**

Congratulations to Professor Ken Baldwin on being awarded a Fellowship of the American Physical Society (APS). Award citation: For seminal contributions to quantum-atom optics and precision laser spectroscopy, organization of major international efforts to study these problems, and outstanding professional leadership.

## **Best Engineering Design Award - National Finals of the F1 in School Competition**

The F1 in Schools Challenge is a competition, open to all Australian secondary schools, to design and manufacture CO<sub>2</sub> powered model Formula One cars. Student teams compete against each other in a Regional, State and a National championship to determine the fastest and best engineered car for a chance to represent Australia at the annual F1inSchools World Championships.

Last night (Wed 26 November) four Year 10 students from Marist College Canberra took out the Best Engineered Design award at the National Finals of the F1 in Schools Competition, held in the Great Hall of Parliament House. Their F1 car impressed the judges enough to qualify for the “coveted” engineering award. The students are already talking about coming back in 2009 to take on the other States and Territories, with hopes of taking out first place and then onto the International Final.

Tom McGuinness, Mechanical Workshop Manager, and Gordon Scott, Mechanical Workshop, assisted greatly in the design and development of the project. Tom continued to oversee the development of the project and Gordon carried out the machining of the wheels and spent a considerable amount of time completing the project. Both Tom and Gordon were very good with both initial design meetings at Marist and also with explaining the process and techniques of machining at RSPE. The students received 50 out

of 50 for their collaboration with industry, a testament to the hard work of Tom and Gordon.

## **SCHOOL COLLOQUIUM**

Wednesday 10 December 2008

4.00pm

**“Plasma Eruptions: Theory and Laboratory Experiments”**

**by Professor Howard Wilson**

Department of Physics, University of York, UK

**FINKEL LECTURE THEATRE, JCSMR**

Drinks and Light Refreshments will be provided in the RSPSE Link Tea Room after the Colloquium

**ALL WELCOME**

## **SCHOOL SEMINARS**

**Theoretical Physics Seminar**

Friday 28 November 2008

11.00am

**“Spin Current and Spin Hall Effects”**

by Professor You-Quan Li, Zhejiang University, Hangzhou, China

Theoretical Physics Seminar Room, RSPE

## **22nd CANBERRA INTERNATIONAL PHYSICS SUMMER SCHOOL**

**“Complex Physical, Biophysical and Econophysical Systems”**

8-19 December 2008

Haydon-Allen Lecture Theatre, ANU

For registration please visit the summer school homepage:

<http://www.rspse.anu.edu.au/~ccs106/SUMMERSCHOOL/SS22/index.html>

RSPE members are welcome to attend morning lectures on a casual basis. Full registration will entitle you to the full program, including morning lectures, afternoon tutorial sessions, morning and afternoon tea, a BBQ evening, Summer School Dinner, and a copy of the summer school proceedings.

Call Daniel Chan on 59992 for more details.

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## STAFF MOVEMENTS

Drs Sanjay Chamoli, Nanda Dasgupta, Tibor Kibédi and Greg Lane, PhD students Michael East, Maurits Evers, Albert Lee, Huy Luong, Ramin Rafiei and Master students Alan Devlin and Chris Weeks, all from the Department of Nuclear Physics, will be attending and presenting talks at the AIP 2008 Congress being held in Adelaide from 30 November – 5 December.

Professor David Hinde and Dr Andrew Stuchbery from the Department of Nuclear Physics will be attending and presenting invited talks at the KERNZ08 Conference being held in Queenstown, New Zealand, 1 – 5 December.

## WELCOME

Please welcome Kirsty Hannam, University of Waikato, Lachlan Nicholls, University of Adelaide and Kalman Robertson, ANU, to the Department of Nuclear Physics to carry out their Summer Research Projects. They will be here until February next year.

Professor John Stone and Dr David Argento from the University of Washington have been visiting the School since the beginning of the week, leaving Friday (28 November), for research collaboration with the AMS group within the Department Nuclear Physics.

## Visitors to CAMS

Professor Roger Azria, Laboratory for Atomic and Molecular Collisions, University Paris-Sud, Professor Jiri Horacek, Institute of Theoretical Physics, Charles University, Prague, and Professor Gustavo Garcia, Institute of mathematics y Fisica Fundamental, Madrid, and Grant van Riessen, Max-Planck-Institut für Mikrostrukturphysik, Germany, are visiting during November/December for research collaboration with members of the Centre for Antimatter-Matter Studies.

## FROM THE ACTING FACILITIES & SERVICES MANAGER

### Cockcroft Eave Repairs

An area of eave and fascia on the South Eastern Corner of the Cockcroft is being repaired starting this week. There will be some scaffolding erected on the Eastern side of the link building so please be aware and extra careful in this area. The work is expected to take about a week to complete. Sorry for any inconvenience.

### Movember (the month formally known as November)

As part of this important men's health fund national raiser, one of our Mechanical Workshop staff, Craig Young, is participating. If you wish to sponsor Craig, please either contact him, or visit the website <https://www.movember.com/au/donate/donate-details.php?action=sponsorlink&rego=1908626&country=au> Everyone should drop and say Hi to Craig and check out the Mo!

The Movember event raises awareness and much needed funds for the [The Prostate Cancer Foundation of Australia](#) and Beyondblue: the national depression initiative, so please sponsor Craig.

## GRANTS AND AWARDS

### Smithsonian Institution

Program Number: 00119

Title: Graduate Student Fellowships

E-mail: [siofg@si.edu](mailto:siofg@si.edu)

Web Site:

<http://www.si.edu/ofg/Applications/SIFELL/SIFELLapp.htm>

– Program URL:

<http://www.si.edu/ofg/Applications/SIFELL/SIFellowship2009.doc>

The sponsor provides support to allow students to conduct in-residence research for ten-week periods in association with Smithsonian research staff members. Applicants must be formally enrolled in a graduate program of study. The stipend is \$6,000.

**Deadline(s): 15/01/2009**

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Link to full program description:

[http://australia.infoed.org/spin/spin\\_prog.asp?00119](http://australia.infoed.org/spin/spin_prog.asp?00119)

## **Smithsonian Institution**

Program Number: 00195

Title: Predoctoral Fellowships

E-mail: [siofg@si.edu](mailto:siofg@si.edu)

Program URL:

<http://www.si.edu/ofg/Applications/SIFELL/SIFellowship2009.doc>

Fellowships of \$27,000, plus allowances, support up to twelve months of in-residence research in biological and physical sciences, and arts, humanities, history, and social sciences. Eligible applicants are doctoral candidates who have completed all coursework and exams and must be engaged in dissertation research.

**Deadline(s): 15/01/2009**

Link to full program description:

[http://australia.infoed.org/spin/spin\\_prog.asp?00195](http://australia.infoed.org/spin/spin_prog.asp?00195)

## **Smithsonian Institution**

Program Number: 00197

Title: Postdoctoral Fellowships

E-mail: [siofg@si.edu](mailto:siofg@si.edu)

Web Site:

<http://www.si.edu/ofg/Applications/SIFELL/SIFELLapp.htm>

Program URL:

<http://www.si.edu/ofg/Applications/SIFELL/SIFellowship2009.doc>

Fellowships of \$42,000 support up to twelve months of in-residence research in biological and physical sciences, art, history, and social sciences. Eligible applicants are scholars who have held the doctoral degree or equivalent for less than seven years.

**Deadline(s): 15/01/2009**

Link to full program description:

[http://australia.infoed.org/spin/spin\\_prog.asp?00197](http://australia.infoed.org/spin/spin_prog.asp?00197)

## **Smithsonian Institution**

Program Number: 00204

Title: Senior Fellowships

E-mail: [siofg@si.edu](mailto:siofg@si.edu)

Web Site:

<http://www.si.edu/ofg/Applications/SIFELL/SIFELLapp.htm>

Program URL:

<http://www.si.edu/ofg/Applications/SIFELL/SIFellowship2009.doc>

Fellowships of \$42,000 plus allowances support up to twelve months of in-residence research in biological and physical sciences, art, history, and social sciences. Eligible applicants are scholars who have held the Ph.D. degree for more than seven years.

**Deadline(s): 15/01/2009**

Link to full program description:

[http://australia.infoed.org/spin/spin\\_prog.asp?00204](http://australia.infoed.org/spin/spin_prog.asp?00204)

## **Smithsonian Institution**

Program Number: 00687

Title: National Air and Space Museum--Daniel and Florence Guggenheim Fellowship

E-mail: [NASM-Fellowships@si.edu](mailto:NASM-Fellowships@si.edu)

Program URL: <http://www.si.edu/ofg/fell.htm#fnasm>

The sponsor provides fellowship support to pre- or postdoctoral candidates for in-residence historical research related to aviation and spaceflight at the National Air and Space Museum in Washington, D.C. **Deadline(s): 15/01/2009**

Link to full program description:

[http://australia.infoed.org/spin/spin\\_prog.asp?00687](http://australia.infoed.org/spin/spin_prog.asp?00687)

## **McDonnell (James S.) Foundation**

Program Number: 54734

Title: 21st Century Research Awards--Studying Complex Systems

E-mail:

Web Site: <http://www.jsmf.org/apply/apply.php>

Program URL: <http://www.jsmf.org/apply/research/>

The sponsor supports scholarship and research directed toward the development of theoretical and mathematical tools that can be applied to the study of complex, nonlinear systems. A maximum of \$450,000, to be expended over a minimum of three years, or a maximum of six years, may be requested.

**Deadline(s): 17/03/2009**

DEADLINE NOTE

Applications will be accepted online beginning February 10, 2009.

Deadline for receipt of applications is March 17, 2009.

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Link to full program description:

[http://australia.infoed.org/spin/spin\\_prog.asp?54734](http://australia.infoed.org/spin/spin_prog.asp?54734)