



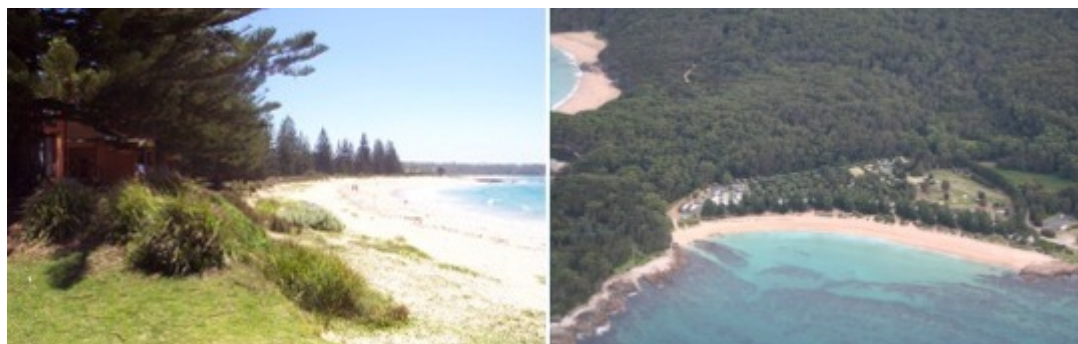
**Centre for Antimatter-Matter Studies**  
Australian Research Council Centre of Excellence

## **SECOND CAMS WORKSHOP**

**6-8 February, 2008**

*Eco*Point  
Murramarang Resort

[www.murramangresort.com.au/](http://www.murramangresort.com.au/)



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South Durras NSW 2536 Australia

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Phone: +61 2 4478 6355

Fax: +61 2 4478 6230

**Getting there:** Turn off Princes Highway about 8 km north of Bateman's Bay onto Durras Road and then drive approximately 7 km following the signs to Murramarang Resort (see map on [www.murramangresort.com.au/getting\\_there.html](http://www.murramangresort.com.au/getting_there.html))

## PROGRAM

### Wednesday, 6<sup>th</sup> February

|                                      |           |          |
|--------------------------------------|-----------|----------|
| Arrival at <i>Murramarang Resort</i> | 1330–1430 |          |
| LUNCH                                |           |          |
| Registration                         | 1430-1500 | Poolside |

#### Welcome

|   |           |              |
|---|-----------|--------------|
| Research Director's Introduction and Report | 1500-1530 | Seminar Room |
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| <b>Session 1 Report on Experimental Programs</b> |  | Seminar Room |
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*Chair: Stephen Buckman (ANU)*

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| ANU Beamline Developments | <i>James Sullivan (ANU)</i> | 1530-1600 |
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| UWA Positron Facility | <i>Paul Guagliardo (UWA)</i> | 1600-1620 |
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| Positron Reaction Microscope | <i>Dan Slaughter (ANU/Adelaide)</i> | 1620-1640 |
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| Molecular Radicals Experiment | <i>Leigh Hargreaves (Flinders)</i> | 1640-1700 |
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| <b>BBQ Dinner</b> | 1930 | Pool side |
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### Thursday, 7 February

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| Breakfast | 0700-0830 |  |
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| <b>Session 2 Theoretical Programs (I)</b> |  | Seminar Room |
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*Chair: Igor Bray (Curtin)*

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| Overview of CAMS theoretical program | <i>Igor Bray (Curtin)</i> | 0830-0840 |
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| Positron-helium scattering | <i>Ravshanbek Utamuratov (Curtin)</i> | 0840-0855 |
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| Bound State approach for scattering | <i>Jun-yi Zhang (CDU)</i> | 0855-0920 |
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| ‘Absorption’ effects in scattering | <i>Bob McEachran (ANU)</i> | 0920-0935 |
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| Relativistic electron scattering | <i>Dmitry Fursa (Curtin)</i> | 0935-0950 |
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| Near-threshold ionization | <i>Alisher Kadyrov (Curtin)</i> | 0950-1005 |
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| Positron-hydrogen rearrangement collision calculations using exterior complex scaling | <i>Philip Bartlett (Murdoch)</i> | 1005-1020 |
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| e <sup>+</sup> scattering from Group IIB atoms | <i>Jun-yi Zhang (CDU)</i> | 1020-1030 |
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| <b>Morning tea</b> | 1030-1100 | Pool side |
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| <b>Session 3 Scattering and Applications</b> |  | Seminar Room |
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*Chair: Jim Williams (UWA)*

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| e <sup>+</sup> scattering from biomolecules & hydrocarbons | 1100-1115 |
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*Michael Brunger (Flinders)*

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| Positron helium scattering | <i>Casten Makochekeanwa (ANU)</i> | 1115-1130 |
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| Ionisation studies | <i>Mark Stevenson (Adelaide)</i> | 1130-1145 |
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| Atmospheric Modelling | <i>Laurie Campbell (Flinders)</i> | 1145-1200 |
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| Electron-zinc interactions | <i>Danica Cvejanovic (UWA)</i> | 1200-1215 |
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| Electron-gold interactions | <i>Peter Teubner (Flinders)</i> | 1215-1230 |
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| Electron-biomolecule scattering | <i>Violaine Vizcaino (ANU)</i> | 1230-1245 |
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| SPARE | 1245-1300 |
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| <b>Lunch</b> | 1300-1400 | Pool side |
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| <b>Session 4 Materials Related Program</b>         |   | Seminar Room        |
| <i>Chair: Suzanne Smith (ANSTO)</i>                |   |                     |
| Applications of nuclear probes in material science |   |                     |
|  | <i>Suzanne Smith (ANSTO)</i>            | 1400-1430           |
| Studies of surface adatoms                         | <i>Jim Williams (UWA)</i>               | 1430-1450           |
| Nuclear wasteforms                                 | <i>Lou Vance (ANSTO)</i>                | 1450-1510           |
| Silk & wool powders                                | <i>Malenhally Dharmaprakash (ANSTO)</i> | 1510-1530           |
| Multi-modal imaging probes                         | <i>Vincent Jamier (ANSTO)</i>           | 1530-1550           |
| <b>Afternoon tea</b>                               |   | 1550-1620 Pool side |
| <b>Session 5 Theoretical programs (II)</b>         |   | Seminar Room        |
| <i>Chair: Robert Robson (ANU)</i>                  |   |                     |
| Positron transport in gases                        | <i>Zoran Petrović (Belgrade)</i>        | 1620-1650           |
| Transport in gases & soft condensed matter         | <i>Ron White (JCU)</i>                  | 1650-1720           |
| Modelling radiation damage                         | <i>Gustavo Garcia (Madrid/ANU)</i>      | 1720-1750           |
| <b>Workshop Dinner</b>                             | 1930                                    | Dining Room         |

### **Friday, 8 February**

Breakfast 0700-0830  
Departure (except Board members)

**Board Meeting** 0900-1200 TBA

Lunch for Board 1200-1300 TBA

Extra nights by private arrangement only

## LIST OF WORKSHOP PARTICIPANTS

### **ANSTO**

Dr Suzanne Smith  
Dr Eskender Mume  
Dr Mallenahally Dharmaparakash  
Dr. Lou Vance  
Mr Vincent Jamier

### **ANU**

Prof Stephen Buckman  
Dr James Sullivan  
Dr Robert Robson  
Dr Stan Newman  
Dr Julian Lower  
Dr Subhendu Mondal  
Dr Casten Makochekanwa  
Dr Daniel Slaughter  
Prof Bob McEachran  
Ms Violaine Vizcaino  
Mr Adric Jones  
Mr Peter Caradonna  
Mr Ryan Weed

### **Adelaide University**

Dr Mark Stevenson  
Mr Leigh Hargreaves  
Mr Chris Colyer

### **Charles Darwin University**

Dr Jun-Yi Zhang

### **Flinders University**

Dr. Michael Brunger  
Prof Peter Teubner  
Dr Laurie Campbell

### **Murdoch University**

Dr Philip Bartlett

### **Curtin University**

Prof Igor Bray  
Dr Dmitry Fursa  
Dr Alisher Kadyrov  
Mr Chris Bostock  
Mr John Weeflaar  
Mr Ravshanbeck Utamuratov

### **James Cook University**

Dr Ronald White  
Dr Kevin Ness

### **University of WA**

Prof Jim Williams  
Dr Danica Cvejanović  
Mr Paul Guagliardo

### **Visitors**

Prof Roy Newell (London)  
Prof Gustavo Garcia (Madrid)  
Prof Zoran Petrović (Belgrade)  
Dr Dragana Marić (Belgrade)  
Dr David Falvey (ARC)  
Dr H. Sugawara (Hokkaido)

### **Advisory Board**

Dr Charles Clark (NIST, USA)  
Prof Michael Charlton (Swansea)  
Dr Richard Jones (Distillery)  
Dr Ian Smith (ANSTO)  
Dr Dennis Jensen, MHR  
Prof Erich Weigold (ANU)  
Prof Stephen Buckman (Director)  
Prof Igor Bray (Deputy Director)

### **Central Office**

Ms Alena Almasy  
Ms Ilona Krolikowska