

## Appendix – Honours and Awards

**Dr Christoph Arns** was elected by the Society of Petrophysicists and Well Log Analysts (SPWLA), a Society with over 3000 members within the oil and gas industry, as a Distinguished Speaker of the Society. He was awarded a best paper award at the 2006 SPWLA annual conference in Veracruz.

**Dr Ken Baldwin** was elected as Fellow of the Institute of Physics, UK.

**Professor Murray Batchelor** was appointed Editor of the Mathematical Physics Section of the Journal of Physics A.

**Professor Stephen Buckman** was the recipient of one of the 40 inaugural Distinguished Alumni Awards from Flinders University, which were presented to celebrate the 40<sup>th</sup> Anniversary of the University.

**Ms Wendy Butler** received the Vice Chancellor's Award for Innovation and Excellence in Service Quality

**Professor Lewis Chadderton** was awarded a Festschrift in recognition of his fifty years of scientific contributions in a wide number of areas in physics at the "First International Meeting on Recent Developments in the Study of Radiation Effects in Matter".

**Dr Christine Charles** was a Visiting Professor (first class) for two months at the University of Orléans, France.

**Dr Vincent Craig** won a travel award for Scientific Visits to Europe in 2006/07 from the Australian Academy of Science.

**Ms Julie Dalco** received the Vice Chancellor's Award for Career Achievement

**Dr Mahananda Dasgupta** was awarded the Pawsey Medal for 2006.

**Professor Robert Dewar** was appointed to the Editorial Board of Physical Review Letters.

**Professor George Dracoulis** was appointed to the Editorial Board of Physical Review Letters. He was also appointed to the Prime Minister's Select Task Force on Uranium Mining and Nuclear Energy (UMPNER)

**Professor David Hinde** was elected a Fellow of the Australian Academy of Science.

**Professor C. Jagadish** was elected Fellow of the International Society for Optical Engineering (SPIE) as well as a Fellow of the Electrochemical Society. He was also awarded the Peter Baume Award of the Australian National University.

**Professor Yuri Kivshar** was elected as Fellow of the American Physical Society. Late in the year he was also awarded the 2007 Lyle Medal by the Australian Academy of Science.

**Professor Wieslaw Krolkowski** was elected Fellow of the Optical Society of America.

**Professor John Love** was appointed International Editor of the Chinese Journal of Optics & Precision Engineering.

**Dr Franklin Mills** was elected to membership in the International Astronomical Union at its triennial General Assembly in August 2006. He has been appointed to Commission 16 on the physical study of planets and satellites. Dr Mills was also selected as a Supporting Investigator for the European Space Agency's Venus Express spacecraft mission in June 2006.

**Dr Chiara Neto** was awarded a travel subsidy to attend to the "International Workshop on Bridging Nanoscale Forces and Interfacial Phenomena to the Macroscopic World", Cancun, Mexico, May 2006.

**Dr Robert Robson** was awarded an Academy of Science Exchange Fellowship to visit the Faculty of Science at the University of Brussels for six weeks in June-July, 2006.

**Dr Tim Wetherell** won the Casuarina Beach Sculpture Walk Prize for his sculpture, Solaris Antiquitus. He also received the Vice Chancellor's Award for Community Outreach.

**Professor Jim Williams** was elected as Fellow of the American Physical Society.

**Dr Anna Wilson** was awarded a Vice Chancellor's Award for Excellence in Teaching and was a recipient of a College of Science Team Teaching Prize with Dr Kathryn Wilson and Mr Andrew Papworth from the Department of Physics.

### *Students*

**Mr Satya Barik** won the Best Oral Paper Award at the ARNAM Workshop in Brisbane.

**Mr Drew Evans** was awarded 3rd place in the "Cisra Physics Prize" for best publication written by a PhD student in the Graduate School of Physics at ANU.

**Mr Michael Fraser** won an ARC Nanotechnology Network Overseas Travel Fellowship Award in support of his visit to Stanford University.

**Ms Christine Henry** was awarded a travel subsidy to attend to the "International Workshop on Bridging Nanoscale Forces and Interfacial Phenomena to the Macroscopic World", Cancun, Mexico, May 2006. She was also awarded a Poster Prize at the 25th

Australian Colloid and Surface Science. Student Conference (ACSSSC), Beechworth, February 2006.

**Mr Ian McKerracher** won the Best Poster Paper Award at ICONN 2006.

**Ms Sudha Mokkapati** won a IEEE Lasers and Electro-Optics Society (LEOS) Graduate Student Fellowship Award and a travel grant to attend the LEOS Annual Meeting in Montreal.

**Mr Steven Morrison** was awarded the 2006 Scholarship/ARNAM Award at the ETOPIM7 conference in Sydney.

**Mr Santhosh Kumar** received the Dean's Award with his presentation "Magnetic Islands in Fusion Devices" presented at the John Carver Seminar.

**Mr Devin Ramdutt** was a recipient of the Helen and Robert Crompton Travel Scholarship.

**Mr Christian Rosberg** was a recipient of the Robert and Helen Crompton Travel Scholarship to make an oral presentation of his work at a conference of his choice.

**Mr Michael West** was a finalist in 2006 Young Australian of the Year Awards and also the 2006 Australia Day Ambassador addressing the Tumut Shire Council Region.

## Appendix – Collaborations

**Professor N. Akhmediev**

**Project:** Numerical Modelling of Dissipative Systems.

**Partner:** Dr J.M. Soto-Crespo, Instituto de Óptica, CSIC, Madrid, Spain

**Project:** Optical Bullets in Dissipative Systems.

**Partner:** Dr Ph. Grelu, Laboratoire de Physique de l'Université de Bourgogne, Dijon, France

**Project:** Multicomponent Nonlinear Schrödinger Equation with Mixed Nonlinearities

**Partner:** Dr T. Kanna, Bharathidasan University Tiruchirapalli, Tamil, India

**Project:** Method of Moments in Dissipative Systems

**Partner:** Dr E. Tsoy, Senior Research Fellow, Physical-Technical Institute of the Uzbek Academy of Sciences, Tashkent, Uzbekistan

**Dr C.H. Arns**

**Project:** Multi-Dimensional NMR Inverse Laplace Spectroscopy

**Partner:** Professor P.T. Callaghan, Victoria University of Wellington, New Zealand

**Project:** Transport Properties from Nuclear Magnetic Resonance

**Partner:** Professor P.T. Callaghan, Victoria University of Wellington, New Zealand

**Project:** Second-Order Analysis for Curvature Measures

**Partners:** Professors D. Stoyan, TU Bergakademie Freiberg, Germany and K.R. Mecke, University of Erlangen-Nürnberg, Germany

**Project:** Elastic Properties of Partially Saturated Rocks

**Partner:** Professor B. Gurevich, Curtin University of Technology

**Project:** Lattice Boltzmann Techniques for Unresolved Porosity

**Partner:** Dr N. Marty, National Institute of Standards and Technology, United States

**Project:** Effective Medium Theories from Minkowski Functionals

**Partner:** Professor K.R. Mecke, University of Erlangen-Nürnberg, Germany

**Project:** Dispersive Flow in Porous Media

**Partners:** Professor P.M. Adler, Institut de Physique de Globe de Paris, France and Dr M. Close, Environmental Science & Research, New Zealand

**Dr T. Aste**

**Project:** Glasses and Granular Materials

**Partners:** Professor A. Coniglio and Dr M. Nicodemi, University of Naples, Italy

**Project:** Disordered Packings in Heterogeneous Colloids

**Partners:** Professor L. Gauckler and Dr F. Filser, ETH Zurich, Switzerland

**Dr T. Aste and Dr T. Di Matteo**

**Project:** Statistical Mechanics Approaches in the Study of Density Fluctuations in Granular Materials

**Partners:** Professor H. Swinney and Dr M. Schroeter, University of Texas at Austin, United States

**Mr N. Balcon**

**Project:** Cotutelle Thesis

**Partner:** University Paul Sabatier Toulouse, France

**Mr N. Balcon and Professor R. Boswell**

**Project:** Dielectric Barrier Discharges

**Partners:** Drs J.P. Boeuf and G. Hagelaar, University Paul Sabatier Toulouse, France

**Dr K.G.H. Baldwin**

**Project:** Ultrahigh Resolution OPO Laser Sources

**Partner:** Professor B. Orr, Macquarie University

**Dr K.G.H. Baldwin and Professor B.R. Lewis**

**Project:** High Resolution XUV Laser Spectroscopy of Isotopic Nitrogen

**Partner:** Professor W. Ubachs, Vrije Universiteit, Amsterdam, Netherlands

**Dr R. Ball**

**Project:** A Distilled Turbulence Refinery

**Partner:** Professor C. Tebaldi, Politecnico di Torino, Italy

**Project:** Bifurcations in the Magnetosphere

**Partner:** Professor W. Horton, University of Texas Austin, United States

**Mr S. Barik, Drs L. Fu and H. H. Tan, Professor C. Jagadish**

**Project:** Modelling of Semiconductor Quantum Dots

**Partners:** Professor P. Harrison and Mr N. Vukmirovic, University of Leeds, United Kingdom

**Dr T.T. Barrows**

**Project:** Glacier History of New Zealand

**Partners:** Dr P. Almond, Lincoln University, New Zealand, Dr R. Rose, University of Canterbury, New Zealand

**Project:** Glacier History of Mt Giluwe, Papua New Guinea

**Partners:** Dr M. Prentice, University of New Hampshire, Professor G. Hope, Australian National University

**Project:** Glacier History of Luthers Pass, Sierra Nevada, United States  
**Partner:** Dr D. Clark, Western Washington University, United States

**Project:** Exposure Dating of Wolfe Creek Crater, Northern Territory  
**Partners:** Professor G. Miller, University of Colorado and Dr J. Magee, Australian National University

**Project:** Long Term Climate Change from Deep-Sea Sediments  
**Partners:** Professor P. De Deckker, Mr M. Spooner, Australian National University and Dr S. Juggins, University of Newcastle, United Kingdom

**Professor M.T. Batchelor and Dr X.W. Guan**

**Project:** Quantum Spin Ladders  
**Partners:** Drs N. Oelkers, University of Queensland and Z. Tsuboi, Okayama Institute for Quantum Physics, Japan

**Professors M.T. Batchelor and V. Bazhanov, Drs X.W. Guan and M. Bortz**

**Project:** Quantum Gases  
**Partners:** Dr J. Links and Dr N. Oelkers, University of Queensland

**Project:** Stromatolite Growth

**Partners:** Dr R. Burne Australian National University, A/Professor B. Henry, University of New South Wales and Dr J. Kaandorp, Vrije Universiteit Amsterdam, The Netherlands

**Dr B. Blackwell**

**Project:** Data mining and Analysis of MHD fluctuations in Heliotron-J  
**Partner:** Dr K. Nagasaki, Kyoto University, Japan

**Dr G. Borg**

**Project:** Collaboration with Standard Communications on ARC Grant and Application for Scientific License for Radio Emission  
**Partners:** Messrs Z. Zhao, D. Dries, G. Long and J. Leong

**Professor R. Boswell**

**Project:** Plasma Ionization through Wave-particle Interaction in a Capacitively Coupled Radio-Frequency Discharge  
**Partners:** Professor U. Czarnetzki, Drs D. O'Connell and T. Gans, Ruhr-University Bochum, Germany

**Project:** Development of a High-Brightness Source for Focused Ion Beam Applications  
**Partner:** FEI Company, United States

**Professor R. Boswell and Dr C. Charles**

**Project:** Low Temperature Fuel Cells  
**Partner:** Dr Pascal Brault, GREMI, Université d'Orléans, France

**Project:** Double Layers in the Solar Corona

**Partner:** Professor E. Marsch, Max Planck Institute, Lindau, Germany

**Project:** Helicon Double Layer Thruster

**Partners:** Auspace, Astrium, European Space Agency

**Professor P. Bouwknegt**

**Project:** Mathematical Foundations of String Theory, in Particular the Study of Symmetries (Dualities) and Underlying Generalizations of Geometry. Gerbes. Twisted K-Theory

**Partners:** Professor V. Mathai, University of Adelaide, Drs K. Hannabuss, Oxford University, H. Sati, Yale University, A. Flournoy, Australian National University, J. Evslin, University of Brussels, B. Jurco, University of Munich and Professors K. Pilch, University of Southern California and I. Grojnowski, University of Cambridge

**Professor A.P. Byrne**

**Project:** Ion Implanter for Radioisotopes

**Partner:** Dr H. Timmers, ADFA, University of New South Wales

**Project:** Superallowed Fermi decays

**Partner:** A/Professor P.H. Barker, University of Auckland, New Zealand

**Professor A.P. Byrne and Dr M.C. Ridgway**

**Project:** PAC Studies of Materials

**Partner:** Dr R. Vianden, ISKP, Universitaet Bonn, Germany

**Project:** Materials Modification by Swift Heavy Ion Irradiation

**Partner:** Professor W. Wesch, University of Jena, Germany

**Mr A. Caillard**

**Project:** CoTutelle Thesis

**Partner:** Université de Orleans, France

**Dr C. Charles and Professor R. Boswell**

**Project :** Theory for Formation of Current-Free Double Layer

**Partner:** Professor M. Lieberman, University of California, United States

**Project:** Laser Induced Fluorescence Measurements of Helicon Double Layers

**Partner:** Professor E. Scime, University of West Virginia, United States

**Project:** Trapped and Free Electrons in a Current Free Double Layer

**Partner:** Professor K. Takahashi, Tohoku University, Japan

**Project:** Astrophysical Double Layers

**Partner:** Professor A. Fredriksen, University of Tromso, Norway

**Dr C. Charles, Dr A. Caillard, and Professor R. Boswell**

**Project:** Diagnostics of Fuel Cell Electrodes Based on Carbon Nanofibers

**Partner:** A/Professor Craig Buckley, Curtin University

**Dr Y. Chen and Mr A. Glushenkov**

**Project:** Synthesis and Properties of ZnO and VO Nanowires

**Partner:** Professor Max Lu, University of Queensland

**Project:** Computer Simulation of High-Energy Ball Milling

**Partner:** Professor A. Yu, University of New South Wales

**Dr Y. Chen, Ms J. Yu and Mr H. Chen**

**Project:** Photoluminescence Spectroscopy of BN Nanotubes Using VUV Synchrotron Source

**Partners:** Drs D. Yu, ANSTO and B. Zheng, National Synchrotron Research Centre, Taiwan

**Dr Y. Chen, Mr H. Chen, Ms J. Yu**

**Project:** Raman Spectroscopy of Single BN Nanotubes

**Partner:** Professors Z. Chen and S. Shen, Fudan University, China

**Drs Y. Chen, Y.J. Chen and L. Fu**

**Project:** Doping BN Nanotubes for Controlled Electric Conductivities

**Partner:** Professor W. Duan, Tsinghua University, China

**Drs Y. Chen, H. Zhang and Mr H. Chen**

**Project:** Field Emission of BN Nanorods and Nanotubes

**Partner:** Professor D. Yu, Beijing University, China

**Dr Y. Chen, Y.J. Chen, Mr H. Chen and Ms J. Yu**

**Project:** Microanalysis of BN Nanotubes and Nanowires

**Partners:** Professor S. Ringer and Dr Z. Liu, University of Sydney

**Drs Y. Chen, Y.J. Chen, Ms J. Yu and Dr B. Li**

**Project:** TEM Investigation of Nanowires and Nanotubes

**Partner:** Dr J. Zou, University of Queensland

**Ms V. Coleman, P. Lever, K. Stewart, Mr S. Barik, Dr H.H. Tan, Professor J.S. Williams and Professor C. Jagadish**

**Project:** Cathodoluminescence Studies of Semiconductor Epitaxial Layers and Quantum Structures

**Partner:** Professor M.R. Philips, University of Technology, Sydney

**Ms V. Coleman, Drs H.H. Tan and S.O. Kucheyev, Professors J.S. Williams and C. Jagadish**

**Project:** Ion Beam Processing of Zinc Oxide

**Partners:** Professors M. Yano and M. Inoue, Osaka Institute of Technology, Japan



**Dr C. Corr**

**Project :** Double Layers in Electronegative Plasmas

**Partners :** Drs P. Chabert, Ecole Polytechnique, France and N. Plihon, CNRS, France

**Dr V. Craig**

**Project:** Nanobubbles

**Partners:** Professor H. Jun, Shanghai Institute of Applied Physics, China and Dr Z. Wu, Nanchang University, China

**Project:** Boundary Slip

**Partner:** Dr W. Ducker, University of Melbourne

**Drs V. Craig and C. Neto**

**Project:** A Model for Boundary Slip in Newtonian Liquids

**Partner:** Dr J. Sader, University of Melbourne

**Dr T. Dall**

**Project:** Heavy Ion Stopping in Solids

**Partners:** Professor H.J. Whitlow, Drs K. Stenstrom, University of Lund, Sweden and H. Timmers, University of New South Wales, Mr S. Shrestha, University of New South Wales and A/Professor D.J. O'Connor, The University of Newcastle

**Dr T. Di Matteo**

**Project:** Study of the Income Distributions

**Partner:** Professor V.M. Yakovenko, University of Maryland, United States

**Drs T. Di Matteo and T. Aste**

**Project:** Characterization of Collective Dynamics in Financial Markets and Complex Systems

**Partner:** Professor R. Mantegna, University of Palermo, Italy

**Project:** High-frequency Dynamics of Financial Markets (FISR) (funded by the Italian Ministry of Education Research and Technology)

**Partner:** Dr E. Scalas, University of Piemonte Orientale, Italy

**Project:** Relationships between the Structure of Social Networks and Productivity

**Partner:** Professor M. Gallegati, Universita Politecnica delle Marche, Italy

**Project:** Multiscaling Behaviours in Financial Markets

**Partner:** Dr M.M. Dacorogna, Converium Ltd Zurich, Switzerland

**Drs T. Di Matteo and T. Aste and Professor S.T. Hyde**

**Project:** European Union (EU) Project - COST P10 "Physics of Risk"

**Partner:** Professor P. Richmond, Trinity College, Ireland

**Dr M. Dasgupta**

**Project:** Investigation of the Nuclear Potential through Quasi-elastic Scattering

**Partners:** Drs K. Hagino and K. Washiyama, Tohoku University, Japan

**Dr M. Dasgupta, Professor D.J. Hinde and Dr L.R. Gasques**

**Project:** Quasi-Elastic Scattering of Sulphur at Sub-Barrier Energies

**Partners:** Professor P.R.S. Gomes, Dr R. Meigikos, Universidade Federal Fluminense, Niterio, Brazil

**Dr M. Dasgupta and Professor D.J. Hinde**

**Project:** Reaching the Superheavy Elements

**Partners:** Drs J.F. Liang, Oak Ridge National Laboratory, United States and K.H. Schmidt, GSI, Darmstadt, Germany

**Professor R.L. Dewar and Dr M.J. Hole**

**Project:** Existence and Stability of a Model for Three-dimensional Toroidal Plasma Equilibria

**Partner:** Dr S.R. Hudson, Princeton University, United States

**Professor R.L. Dewar and Dr B.G. Kenny**

**Project:** Quantum Chaos in the Ideal-MHD Spectrum for Stellarators

**Partners:** Drs C. Nührenberg, Max Planck Institute for Plasma Physics, Germany and T. Tatsuno, University of Maryland, United States

**Professor R.L. Dewar, Dr R. Ball and Professor M.T. Batchelor**

**Project:** ARC Research Network – Complex Open Systems Network (COSNet)

**Partners:** Professors C. Grebogi, University of Aberdeen, United Kingdom, R. MacKay, FRS, University of Warwick, United Kingdom and 42 participants from the Australian National University and other Australian universities

**Professor R.L. Dewar, Drs R. Ball, R. Numata, J.S. Frederiksen and Messrs R.F Abdullatif and M. Zidikheri**

**Project:** Studies of Turbulence and Coherent Structures in Quasi Two-dimensional Plasmas and Fluids

**Partners:** Dr B.D. Scott, Max Planck Institute for Plasma Physics, Germany, Professor C. Tebaldi, Politecnico di Torino, Turin, Italy and Dr E.R. Solano, Laboratorio Nacional de Fusion (CIEMAT), Madrid, Spain

**Dr A. Diaz-Torres**

**Project:** Coupled-Channels Effects in Near-Barrier Fusion and Elastic Scattering of Weakly Bound and Halo Light Nuclei

**Partners:** Drs C. Beck, University Louis Pasteur, Strasbourg, France and N. Keeley, Saclay, Gif-sur-Yvette, France

**Project:** Modeling Breakup and Fusion of Weakly Bound Nuclei

**Partner:** Dr J. A. Tostevin, University of Surrey, United Kingdom

**Professor G.D. Dracoulis**

**Project:** High-K Isomers

**Partners:** Professor P.M. Walker, University of Surrey, United Kingdom, Dr F.G. Kondev, Argonne National Laboratory, United States

**Project:** High-K Isomers in Deformed Nuclei near Stability

**Partners:** Drs F.G. Kondev and R. Janssens, Argonne National Laboratory, United States

**Project:** Laser Spectroscopy of Deformed Isomers

**Partners:** Dr J. Billowes, University of Manchester, United Kingdom, Professor J.A.R. Griffith, University of Birmingham, United Kingdom, and Dr P. Dendooven, University of Jyväskylä, Finland

**Professor G.D. Dracoulis, Drs A.P. Byrne and G.J. Lane**

**Project:** Realistic Shell Model Calculations for Trans-Lead Nuclei

**Partner:** Professor A. Covello, University of Naples, Italy

**Project:** Neutron Rich Trans-lead Nuclei Using Radioactive Beams

**Partners:** Professors P.M. Walker, University of Surrey, United Kingdom and G. de France, GANIL, Caen, France

**Professor G.D. Dracoulis and Dr T. Kibédi**

**Project:** Nuclear Structure in the  $N = 74$  Region

**Partner:** Dr A.M. Bruce, University of Brighton, United Kingdom

**Project:** Isomers in Sb Nuclei

**Partner:** Dr D. Judson and Professor A. Bruce, University of Brighton, United Kingdom

**Professor G.D. Dracoulis and Dr G.J. Lane**

**Project:** Structure of Deformed Odd-odd Nuclei

**Partners:** Drs C. Günther, University of Bonn, Germany and F.G. Kondev, Argonne National Laboratory, United States

**Professor G.D. Dracoulis, Dr G.J. Lane, Dr A.P. Byrne and Dr T. Kibédi**

**Project:** Shape Co-Existence in Very Neutron-deficient Pb Nuclei

**Partners:** Drs J. Gerl, GST, Germany and A. Andreyev, University of Liverpool, United Kingdom

**Project:** Residual Interactions in the Pb-region

**Partner:** Professor K.H. Maier, Niewodniczanski, Institute of Nuclear Physics, Poland

**Professor R.G. Elliman**

**Project:** Semiconductor Nanocrystal Memory Devices

**Partner:** Dr S.H. Choi, Kyung Hee University, Korea

**Project:** The Synthesis and Properties of Nickel Silicide Nanocrystals

**Partner:** Professor J.H. Yoon, Kangwon National University, Korea

**Project:** Mechanical Properties of Silicon Nanostructures

**Partners:** Mr K.R. Virwani and Professor A.P. Malshe, University of Arkansas, United States, Professor D.K. Sood, Royal Melbourne Institute of Technology

**Project:** Silicon Based Photonic Devices and Structures

**Partner:** Professors J. Linnros, Royal Institute of Technology, Kista-Stockholm, Sweden and Drs J. Valenta and I. Pelant, Charles University, Prague, Czech Republic and Professor E. Krausz, Australian National University

**Project:** Biomedical Applications of Silicon Dioxide Nanowires

**Partners:** A/Professor S. Bhansali, University of South Florida, United States and Dr D.K. Sood, Royal Melbourne Institute of Technology

**Project:** Ion Implantation Defects in Group IV Semiconductors

**Partner:** Professor K. Jones, Ms D. Hickey and Ms L. Edelman, University of Florida, United States

**Professor L.K. Fifield and AMS Group**

**Project:** Dating of Marine Cores with Carbon-14

**Partners:** Drs P. De Deckker and B. Opdyke, Department of Earth and Marine Sciences

**Project:** Measurement of erosion rates at a range of scales in the Australian landscape using in situ produced  $^{10}\text{Be}$

**Partner:** Professor J. Chappell, Research School of Earth Sciences

**Project:** Landscape Evolution in the Southern Highlands Region of NSW, Using  $^{10}\text{Be}$  Deposited from the Atmosphere

**Partner:** Professor R. Wasson, Centre for Resource and Environmental Studies

**Project:** Studies of Meteorites Using Cosmogenic Isotopes

**Partner:** Professor G. Herzog, Rutgers University, United States

**Project:** Dating of Ice in Temperate-Region and Polar Glaciers with  $^{32}\text{Si}$

**Partners:** Ds U. Morgenstern and A. Zondervan, Geological and Nuclear Sciences, Lower Hutt, New Zealand

**Project:** Tracing Releases of Plutonium from Nuclear Processing Plants in Russia

**Partners:** Professor D. Oughton and Drs L. Skipperud, O. Lind, Norwegian University of Life Sciences, Norway and W. Standring, Norwegian Radiation Protection Authority, Norway

**Project:** Tracing of Groundwater Flow and Mixing in a Number of Australian Aquifer Systems

**Partners:** Drs R. Habermehl, J. Kellett, Bureau of Rural Sciences and R.G. Cresswell, CSIRO

**Project:** Tracing of Groundwater Flow in a Natural Analogue of a Nuclear Waste Repository Using  $^{36}\text{Cl}$

**Partners:** Drs Y. Mahara, Abiko Research Laboratory, Japan and R. Habermehl, Bureau of Rural Sciences, Dr R.G. Cresswell, CSIRO

**Project:** Exposure Dating of Glacial Landforms in Scotland, and lava Flows in Hawaii

**Partners:** Professors J. Stone, University of Washington, United States and C. Ballantyne, University of St. Andrews, United Kingdom

**Project:** Calibration of the Cosmic-Ray Production of Chlorine-36 on Iron in Surface Rocks

**Partner:** Professor J. Stone, University of Washington, United States

**Project:** Plutonium as a Tracer of Soil Movement

**Partner:** Dr G. Hancock, P.Wallbrink, R.Bartley CSIRO Land and Water

**Project:** Plutonium Measurements by AMS at Low Energy

**Partner:** Dr L. Wacker, ETH Zurich, Switzerland

**Project:** S.E. Australian Coastal Rock Platforms – When and How Were They Formed?

**Partner:** Professor J. Stone, Washington State University, United States

**Mr R. Fischer**

**Project:** Few-Cycle Pulses (pulse compression) and Non Phase-Matched Third-Harmonic-Generation in Highly Nonlinear Fibres

**Partner:** Professor John Dudley, Université de Franche-Comté, Besançon, France

**Professor N. Fletcher**

**Project:** The Acoustics of the Didjeridu

**Partners:** A/Professor L. Hollenberg, Melbourne University and Professors J. Wolfe and J. Smith, University of New South Wales

**Project:** Acoustics of Birdsong

**Partners:** Professor R.A. Suthers, Indiana University, United States, Drs T. Riede, Humboldt University, Germany and G.J.L. Beckers, Leiden University, Netherlands

**Project:** Flute Acoustics

**Partner:** Mr T. McGee, Australian Flutemaker, Canberra

**Dr A. Fogden**

**Project:** Superhydrophobic Coatings

**Partners:** Drs J. Vyörykkä and R. Corkery, Institute for Surface Chemistry, Sweden

**Project:** Acoustics of Offset Printing

**Partners:** Drs J. Voltaire, Institute for Surface Chemistry, Sweden and W. Batchelor, Monash University

**Mr M. Fraser, Drs M. Gao, L. Fu, H.H. Tan and Professor C. Jagadish**

**Project:** THz Spectroscopy of Compound Semiconductors

**Partners:** Drs M. Johnston and L. Hertz, Oxford University, United Kingdom

**Dr L. Fu, Mr S. Barik, Dr H.H. Tan and Professor C. Jagadish**

**Project:** Analysis of Semiconductor and Insulating Thin Films by XPS

**Partners:** Dr B. Gong and Professor R. Lamb, University of New South Wales

**Professor E.G. Gamaly**

**Project:** Ultra-high Density Permanent and/or Erasable Optical Memory in Photorefractive Media Formed by Ultrafast Laser Pulses

**Partners:** Professors H. Misawa and S. Juodkazis, Hokkaido University, Sapporo, Japan and Dr O. Louchev, RIEKEN, Tokyo, Japan

**Project:** Formation of Novel Super-dense Materials by Femtosecond-laser-created Micro-explosion Inside the Bulk of Transparent Materials

**Partners:** Professors H. Misawa, S. Juodkazis, Hokkaido University, Sapporo, Japan and D. Gomberg, National Institute for Materials Science, Tsukuba, Japan

**Project:** Characterization and Analysis of Ultrashort Laser-matter Interaction at Low and Medium Laser Intensities

**Partners:** Laboratoire d'Optique Appliquée, Palaiseau, France, Centre Lasers Intenses et Applications, Bordeaux, France, The Lasers, Plasmas, and Photonic Processes Laboratory, University Aix Marseille-II, Marseille, France

**Professor E.G. Gamaly and Dr A.V. Rode**

**Project:** Formation of Novel Super-Dense Materials by Femtosecond Laser-Created Microexplosion

**Partners:** Professor H. Misawa and Dr S. Joudkazis, University of Hokkaido, Japan, Professor V.T. Tikhonchuk and Dr L. Hallo, University of Bordeaux 1, France

**Professor E.G. Gamaly, Dr A.V. Rode and Professor B. Luther-Davies**

**Project:** Ultrafast Laser Excitation of Coherent Phonons

**Partners:** Drs D. Boschetto and A. Rousse, Ecole Polytechnique, Palaiseau, France

**Dr L.R. Gasques**

**Project:** Development of a Model of Fusion Using the Universal São Paulo Potential

**Partner:** Dr L. C. Chamon, University of São Paulo, Brazil

**Project:** Calculations of Reaction Rates of Astrophysical Interest

**Partner:** Dr M. Wiescher, University of Notre Dame, United States

**Dr S.T. Gibson and Professor B.R. Lewis**

**Project:** (NASA) Photoabsorption Cross Sections in the Ultraviolet for Planetary Atmospheres Applications

**Partners:** Professor G. Stark, Wellesley College, United States, Dr P.L. Smith, Harvard-Smithsonian Center for Astrophysics, United States

**Project:** Measurements of Thermospheric Molecular Oxygen

**Partner:** Dr J.D. Lumpe, Computational Physics Inc. Boulder, United States

**Project:** Remote Sensing of the Thermosphere

**Partner:** Professor R.R. Meier, George Washington State University, United States

**Drs S.T. Gibson and S.J. Cavanagh, Professor B.R. Lewis and Dr F.P. Mills**

**Project:** (ACCESS) Australian Centre for Enabling Molecular Sciences

**Partners:** Drs M. Buntine, J. Gascooke, G. Metha, University of Adelaide, M. Collins, Australian National University, M. Brunger and W. Lawrance, Flinders University, E. Bieske and R. O'Hair University of Melbourne, D. McNaughton and E. Robertson, Monash University, P. Gill, M. Jordan and S. Kable, Professor L. Radom and Dr T. Schmidt, University of Sydney, Dr B. Yates, University of Tasmania

**Professor D.J. Hinde and Dr M. Dasgupta**

**Project:** Double Folding Model Calculation of Nuclear Potentials

**Partner:** Dr I.I. Gontchar, Omsk State University, Russia

**Project:** Breakup and Fusion of Stable Weakly-Bound Nuclei

**Partners:** Professor J.A. Tostevin, University of Surrey, United Kingdom, Drs M. Freer, University of Birmingham, United Kingdom and K. Hagino, Tohoku University, Sendai, Japan

**Professor D.J. Hinde, Drs M. Dasgupta and L.R. Gasques**

**Project:** Complete and Incomplete Fusion of Boron Isotopes

**Partner:** Dr A. Mukherjee, Saha Institute of Nuclear Physics, Calcutta, India

**Professor D.J. Hinde, Dr M. Dasgupta and Professor J.O. Newton**

**Project:** Fusion and Scattering in C+Pb Reactions

**Partner:** Drs A. Mukherjee, Saha Institute of Nuclear Physics, Calcutta, India, K. Hagino, Tohoku University, Sendai, Japan

**Professor D.J. Hinde, Drs M. Dasgupta and R.G. Thomas**

**Project:** Fusion with Radioactive  $^{14}\text{O}$

**Partner:** Professor S. Kubono, University of Tokyo, Japan

**Dr M.J. Hole**

**Project:** Compressional Alfvén Eigenmodes in MAST

**Partner:** Dr L.C. Appel, United Kingdom Atomic Energy Authority Fusion Division, United Kingdom

**Dr J. Howard**

**Project:** Installation of Coherence Imaging System

**Partner:** University of Sydney

**Project:** Microwave Tomography of Human Tissue  
**Partner:** Professor M. Persson, Chalmers University, Sweden

**Project:** Optical Coherence Imaging for Thomson Scattering  
**Partner:** Dr T. Hatae, Japan Atomic Energy Agency, Japan

**Project:** Optical Imaging Systems for Thermography and Slag/Iron Discrimination at a Molten Iron Furnace  
**Partners:** Mr B. Scott and Dr R. Nightingale, Bluescope Steel Limited, Port Kembla

**Project:** Coherence Imaging Studies of the Hanbit Mirror and KSTAR Tokamak  
**Partner:** Dr J. Chung, Korean National Fusion Research Center

**Professor J. Howard, Drs M. Shats and B. Blackwell**

**Project:** Development of Diagnostic Imaging Systems for the Sydney University High Current Pulsed Arc  
**Partners:** Professor M. Bilek, Drs R. Tarrant and G. Warr and Professor D. Mackenzie, University of Sydney

**Ms H. J. Joyce, Drs Y. Kim, Q. Gao, H. H. Tan and Professor C. Jagadish**

**Project:** Electron Microscopy Studies of III-V Nanowires  
**Partner:** A/Professor J. Zou, University of Queensland

**Professor A. Kheifets**

**Project:** Convergent Close-coupling Theory of Double Ionization by Photon and Electron Impact  
**Partner:** Dr I. Bray, Murdoch University

**Project:** Electron Impact Double Ionization of the Helium Atom  
**Partner:** Dr A. Dorn, Max-Planck Institute for Nuclear Physics, Heidelberg, Germany

**Drs T. Kibédi and P.M. Davidson**

**Project:** Theoretical Conversion Coefficients and EO Electronic Factors  
**Partners:** Drs T.W. Burrows, Brookhaven National Laboratory, United States, M.T. Trzhaskovskaya, Petersburg Nuclear Physics Institute, Gatchina, Russia, C.W. Nestor, Jr., Oak Ridge National Laboratory, United States

**Drs Y. Kim, Q. Gao, Ms H. J. Joyce, Dr H. H. Tan and Professor C. Jagadish**

**Project:** Optical Spectroscopy Studies of III-V Nanowires  
**Partners:** Professors L.M. Smith and H.E. Jackson, University of Cincinnati, United States

**Professor Y. Kivshar and Dr A. Sukhorukov**

**Project:** Stability Analysis of Solitary Waves  
**Partner:** Professor D.E. Pelinovsky, McMaster University, Canada



**Project:** Discrete Solitons in Waveguide Arrays

**Partners:** Professors R. Morandotti, University of Quebec, Canada, S. Aitchison, University of Toronto, Canada and Y. Silberberg, Weizmann Institute of Technology, Israel

**Project:** Solitons in Photonic Lattices

**Partner:** Dr M. Johansson, Chemistry and Biology, Linkopings, Sweden

**Project:** Slow Light in Photonic Crystals

**Partner:** Dr Dmitry Chigrin, University of Bonn, Germany

**Professor W. Krolikowski**

**Project:** Nonlocal Solitons

**Partners:** Professors O. Bang, Technical University of Denmark, Denmark, M.Saffman, University of Wisconsin, United States, Dr S. Skupin, University of Paris, France and Professor J. Wyller, Norway Agricultural University, Norway

**Project:** Solitons in Periodic Systems

**Partners:** Professors M. Trippenbach, Warsaw University, Poland, M. Gajda, Polish Academy of Sciences, Poland

**Dr G.J. Lane, Professors G.D. Dracoulis and A.P. Byrne**

**Project:** High-spin States and Shell Model Structure of Neutron-rich Nuclei near  $^{208}\text{Pb}$

**Partners:** Professor R. Broda, Dr B. Fornal and Professor K.-H. Maier, Niewodniczanski Institute of Nuclear Physics, Poland

**Project:** Octupole Correlations and Particle Alignments in Neutron-Rich Uranium Nuclei

**Partners:** Professor R. Broda and Drs B. Fornal, Niewodniczanski Institute of Nuclear Physics, Poland and S. Zhu, Professor R.V.F. Janssens and Drs M. Carpenter, Argonne National Laboratory, United States, A.O. Macchiavelli and D. Ward, Lawrence Berkeley National Laboratory, United States

**Project:** Limits of K-Isomerism and Astrophysical Processes in Neutron-Rich Tungsten, Rhenium and Osmium Nuclei

**Partners:** Drs F.G. Kondev and R.V.F. Janssens, Professor M.P. Carpenter, Drs T. Lauritsen, D. Seweryniak and S. Zhu, Argonne National Laboratory, United States and Professor P. Chowdhury, University of Massachusetts, Lowell, United States

**Dr C. Lee**

**Project:** Enhanced Quantum Reflection of Matter-Wave Solitons

**Partner:** Dr J. Brand, Max Planck Institute for the Physics of Complex Systems, Germany

**Drs N. Lobanov and D.C. Weisser**

**Project:** Measurement of Magnetization of PbSn Films

**Partner:** Dr A.V. Pan, University of Wollongong

**Project:** Characterization of Superconducting Films Using Neutron Scattering

**Partners:** Drs S. Danilki and M.Yethiraj, ANSTO

**Project:** Superconducting Sputtered Quarter Wave Cavities

**Partners:** Drs M. Pasinini and M. Lindroos, CERN-AB/ISOLDE, Switzerland

**Professors B. Luther-Davies and W. Krolikowski**

**Project:** Centre of Excellence for Ultrahigh Bandwidth Devices for Optical Systems

**Partners:** University of Sydney, Macquarie University, University of Technology, Sydney, Swinburne University of Technology, NSW Department of State and Regional Development, Osaka University, Japan, University of Central Florida, United States, Lucent Technologies, United States and Institut Fresnel, France

**Professor B. Luther-Davies and Dr V. Kolev**

**Project:** Laser Guide Star Using a High Power Synchronously Pumped Optical Parametric Oscillators

**Partner:** Electro Optics Systems

**Professor B. Luther-Davies and Dr S.J. Madden**

**Project:** Advanced Siloxane Waveguide Devices for Telecommunications

**Partner:** RPO, Canberra

**Mr A. Meige**

**Project:** Cotutelle Thesis

**Partner:** University Paul Sabatier Toulouse, France

**Dr F.P. Mills**

**Project:** Photochemical Modeling of the Venus Middle Atmosphere

**Partners:** Dr M. Allen, NASA Jet Propulsion Laboratory, United States and Professor Y.L. Yung, California Institute of Technology, United States

**Project:** Excited State Oxygen Chemistry in the Venus Atmosphere

**Partner:** Dr T. Slanger, SRI International, United States

**Project:** Ultraviolet Characterization and Remote Sensing of Aerosols

**Partners:** Drs A. Eldering, O. Kalashnikova, NASA Jet Propulsion Laboratory, United States, D. Anderson, B. Forgan, Bureau of Meteorology, Australia and R. Mitchell, CSIRO

**Ms S. Mokkalapati, Mr L. Lysevych, Dr H. H. Tan and Professor C. Jagadish**

**Project:** Quantum Well and Quantum Dot Lasers

**Partner:** Dr M. Buda, National Institute of Material Physics, Romania

**Dr D. Neshev**

**Project:** Optical Solitons and Vortices

**Partner:** Professor A. Dreischuh, Sofia University, Bulgaria

**Project:** Infiltrated Photonic Crystal Fibres

**Partner:** Professor O. Bang, Technical University of Denmark, Denmark

**Project:** Quasi Phase Matching

**Partner:** Professor S. Saltiel, University of Sofia, Bulgaria

**Project:** Lithium Niobate Waveguide Arrays

**Partner:** Dr A. Mitchell, RMIT

**Project:** Supercontinuum Solitons

**Partners:** Professor B. Eggleton and Mr J. Boldger, University of Sydney

**Project:** Counterpropagating Solitons in Optical Lattices

**Partner:** Professor C. Denz, University of Munster, Germany

**Project:** Pulse Compression in Highly Nonlinear Fibers

**Partner:** Dr J. Dudley, University of Besancon, France

**Dr C. Neto**

**Project:** Fingering Instabilities in Dewetting Thin Polymer Films

**Partner:** Professor K. Jacobs, Saarland University, Germany

**Project:** Immobilisation of Bacterial Cells on Micro-patterned Substrates

**Partners:** Dr R. Baker and Professor K. Matthaei, Australian National University

**Project:** Experiments on Liquid Boundary Slip in Newtonian Liquids

**Partner:** Professor R. Horn, Ian Wark Institute, Adelaide

**Dr E. Ostrovskaya**

**Project:** Nonlinear Localization of Bose-Einstein Condensates in Optical Lattices

**Partner:** Professor M. Oberthaler, University of Heidelberg, Germany

**Drs D. Powell and I. Shadrivov**

**Project:** Fabrication of Nonlinear and Tunable Metamaterials

**Partner:** Dr A. Mitchell, RMIT University, Melbourne

**Project:** Analytical Modelling of a Nonlinear Split Ring Resonator

**Partner:** Dr M. Gorkunov, University of Strathclyde, Glasgow, United Kingdom

**Mr D. Ramdutt**

**Project:** Adhesion of Proteins to Plasma Polymers Deposited in a High Density, Low Pressure, Helicon Reactor and its Application for a New Cell Array Platform

**Partner:** Professor C. dos Remedios, University of Sydney

**Mr D. Ramdutt, Dr C. Charles and Professor R. Boswell**

**Project:** Surface Diagnostics of Plasma Treated Fuel Cell Membranes

**Partner:** Professor T. Gengenback, CSIRO, Melbourne

**Messrs D. Ramdutt and A. Caillard, Dr C. Charles and Professor R. Boswell**

**Project:** Development of New Membrane Electrode Assembly

**Partners:** Drs A. Dicks and M. Liu, University of Queensland

**Dr M.C. Ridgway**

**Project:** Swift Heavy-Ion Irradiation of Bulk Semiconductors and Metallic Nanocrystals

**Partner:** Professor A.P. Byrne, Australian National University

**Project:** Amorphisation of Ternary Semiconductor Alloys

**Partner:** Professor W. Wesch, Friedrich Schiller University, Germany

**Dr B.A. Robson**

**Project:** Deuteron-Deuteron Elastic Scattering

**Partner:** Professor Z. Yu-shun, Institute of High Energy Physics, Academia Sinica, China

**Drs A. V. Rode and K. Baldwin**

**Project:** Laser Cleaning of Surface Contamination with Ultrashort Pulses

**Partner:** Dr P. Delaporte, Mediterranean University, Marseille, France

**Drs A. V. Rode, A. G. Christy and Professor B. Luther-Davies**

**Project:** Structural and Electronic Characterisation of Magnetic Carbon Nanoclusters

**Partners:** Dr D. Arcon, University of Ljubljana, Professor A. I. Veinger, Ioffe Physical-Technical Institute, St Petersburg, Russia and Dr D. McCulloch, RMIT University, Melbourne

**Mr C. Rosberg**

**Project:** Tunable Nonlinear Periodic Structures Based on Infiltrated Microstructured Optical Fibers

**Partners:** Professor O. Bang and Dr A. Bjarklev, Technical University of Denmark, Denmark

**Dr A. Samoc**

**Project:** All-Optical Poling of Polymer Films and Fibres

**Partners:** Professors J.-M. Nunzi and R. Barille of the University of Angers, France

**Project:** Nonlinear Optical Effects in Functionalized Cellulose Films

**Partner:** Professor J. Ulanski, Technical University of Lodz, Poland

**Dr T.J. Senden**

**Project:** Atomic Force Microscopy of Single Polymer Chain

**Partner:** Professor J.-M. di Meglio, Paris, France

**Project:** Evolution of Devonian Fish

**Partner:** Dr J. Long, Museum of Victoria

**Project:** Tomographic Imaging of Bee Brains

**Partner:** Professor W. Ribi, Universität für Humanwissenschaften, Liechtenstein

**Dr M.G. Shats**

**Project:** Confinement Studies in Stellarators

**Partner:** Professor K. Toi, National Institute for Fusion Science, Japan

**Project:** Non-local Transfer in Plasma Turbulence

**Partner:** Dr S. Nazarenko, Mathematics Research Centre, Warwick University, United Kingdom

**Dr A. Sheppard**

**Project:** Development of Integral-geometry Based Characterisation Tools for 3D Objects

**Partners:** Professor K. Mecke, Drs B. Breidenbach and G. Schroeder, University of Erlangen-Nürnberg, Germany

**Project:** Evaluating Different Segmentation and Image Processing Techniques for Tomographic Data Collected at the Advanced Photon Source

**Partner:** A/Professor D. Wildenschild, Oregon State University, United States

**Project:** In-situ Imaging of the 3D Root Structure of Wheat Plants in Diverse Soil Types

**Partners:** Dr J. Passioura and Mr D. Deery, CSIRO Plant Industry

**Project:** Analysis of Large 3D Phase-contrast Images of Biomaterials: Nut Shells, Timber, Bamboo and Crustacean Shells

**Partner:** Dr U. Wegst, Max Planck Institute für Metallforschung, Germany

**Project:** Tracking the Evolution of a Foam Using X-ray Microtomographic Imaging at the ESRF

**Partners:** Drs B. Breidenbach, University of Erlangen-Nürnberg, Germany, J. Lambert, Université Rennes, France and P. Cloetens, European Synchrotron Research Facility (ESRF), France

**Project:** Film Drainage in Wet Granulates: Quantitative Analysis of Tomographic Images

**Partners:** Drs M. Scheel and R. Seeman, Max Planck Institute for Dynamics and Self-Organization, Germany

**Drs A. Sheppard and V. Robins**

**Project:** 3D Image Segmentation and Shape Characterization Driven by Topological Persistence

**Partner:** Professor K. Mecke, University of Erlangen, Germany

**Dr A. Stuchbery**

**Project:** Nuclear g Factors and Structure of High-Spin Isomers in  $^{190,192,194}\text{Pt}$  and  $^{196,198}\text{Hg}$

**Partner:** Professor A.I. Levon, Institute for Nuclear Research, Kiev, Ukraine

**Project:** Nuclear Spin Polarization Following Intermediate-Energy Heavy-Ion Reactions

**Partner:** Professor P.F. Mantica and J.S. Pinter, Michigan State University, United States

**Project:** Magnetic Moments of Radioactive Beams - an Incisive Probe of Novel Structures in Neutron-rich nuclei (ARC Discovery)

**Partners:** Professors P.F. Mantica, Michigan State University, United States, N. Benczer-Koller, Rutgers University, United States

**Project:** Single-Particle and Collective Degrees of Freedom in  $^{101}\text{Zr}$  and  $^{103,105}\text{Mo}$

**Partner:** Dr R. Orlandi and Dr A.G. Smith, University of Manchester, United Kingdom

**Project:** Nuclear g-factor Measurements of the  $9/2^-$  and  $21/2^-$  Isomeric States in  $^{173}\text{Ta}$

**Partners:** Dr P. Thakur and Professor A. K. Bhati, Panjab University, India

**Drs A. Stuchbery, A. Wilson and P. Davidson**

**Project:** Perturbed Angular Correlations for Gd in Gadolinium: In-Beam Comparisons of Relative Magnetizations

**Partner:** Professor N. Benczer-Koller, Rutgers University, United States

**Project:** Probing Shell Structure and Shape Changes in Neutron-Rich Sulfur Isotopes Through Transient-Field g-Factor Measurements on Fast Radioactive Beams of  $^{38}\text{S}$  and  $^{40}\text{S}$

**Partners:** Dr A.D. Davies, Professors P.F. Mantica and B.A. Brown, Michigan State University, United States

**Project:** Onset of Deformation at  $N=40$  in the Fe Isotopes Studied Through Excited-State g-Factor Measurements. (Approved Experiment, NSCL 06013)

**Partners:** Professors P.F. Mantica, Michigan State University, United States and N. Benczer-Koller, Rutgers University, United States

**Project:** Measurement of the Magnetic Moments of the  $2^+$  States in the Neutron-Rich Radioactive  $^{72}\text{Zn}$  and  $^{74}\text{Zn}$  using the high-velocity transient field technique. (Approved Experiment, GANIL E535)

**Partners:** Drs G. Georgiev, CSNSM, Orsay, France and A. Jungclaus, Universidad Autónoma de Madrid, Spain

**Project:** Gyromagnetic Ratios of  $4^+$  States near  $^{132}\text{Sn}$ : Further Development of the RIV Technique. (Approved Experiment, HRIBF, RIB-166)

**Partners:** Professor N. Benczer-Koller, Rutgers University, United States, Dr C. Baktash, Oak Ridge, United States, Professors C.R. Bingham, University of Tennessee, United States and N.J. Stone, University of Oxford, United Kingdom

**Dr J. Sullivan**

**Project:** Lifetime-resolved Fluorescence Spectroscopy of Inner-shell Excitation Decay Processes

**Partners:** Drs P. Hammond, University of Western Australia, Y. Azuma, M. Lebeck, Photon Factory KEK, Japan and J. Harries, Spring-8, Japan

**Dr L.J. Tassie**

**Project:** Formation of the Universe from Cosmic Superstrings

**Partner:** Professor P. Brosche, University of Bonn, Germany

**Dr R. G. Thomas**

**Project:** Fusion Fission Dynamics of Heavy Ion Collisions Leading to Superheavy Elements

**Partners:** Drs S. Kailas, R. K. Choudhury and S. S. Kapoor, Bhabha Atomic Research Centre, India, Professor G. Viesti and Dr M. Cinausero, Legnaro National Laboratory, Italy

**Dr S.G. Tims**

**Project:** Plutonium: A New Tracer of Sediment Transport into the Great Barrier Reef Lagoon

**Partners:** Drs G.Hancock, P.Wallbrink and R.Bartley, CSIRO

**Dr D.C. Weisser**

**Project:** Operation and Improvement of Accelerator Facilities

**Partner:** Dr D. Garton, ANSTO

**Dr A.N. Wilson**

**Project:** High-Spin States In Nuclei With  $A=120$  Near The Proton Dripline

**Partner:** Dr J.F. Smith, Manchester University, United Kingdom

**Project:** Excitation Energies of Superdeformed Bands with  $A\approx 190$

**Partners:** Drs A. Korichi, CSNSM, Orsay, France, S. Siem, University of Oslo and J .Libert, IPN Orsay, France

**Project:** Search for Hyperdeformation in the Te-Ba Region

**Partners:** Professors H. Hübel, ISKP Bonn, Germany and B. Herskind, Niels Bohr Institute, Copenhagen, Denmark

**Drs A.N. Wilson and P.M. Davidson**

**Project:** Decay Out of Superdeformed Bands in a Two-level Mixing Model

**Partner:** Professor B.R. Barrett, University of Arizona, United States

**Project:** Decay Out of Superdeformed Bands

**Partners:** Dr A.J. Sargeant and Professor M.S. Hussein, Universidade de Sao Paulo, Brazil

**Project:** Shape Coexistence in  $^{188}\text{Hg}$

**Partners:** Professors P. Fallon, Lawrence Berkeley National Laboratory, United States and I. Ragnarsson, Lund Institute of Technology, Sweden

**Drs A.N. Wilson, P.M. Davidson and P. Nieminen**

**Project:** Superdeformation in Po Isotopes and Magnetic Rotation

**Partners:** Dr R.A. Bark and Professors J.F. Sharpey-Schafer, iThemba Laboratories, South Africa, H. Hubel, HISKP Bonn, Germany and Drs A.Korichi, CSNSM Orsay, France, R. Julin and P.M. Jones, University of Yväsytä, Finland

**Dr J. Wong-Leung**

**Project:** Ion Implantation and Defect Studies in Silicon Carbide

**Partners:** Professor B.G. Svensson, University of Oslo, Norway, Dr M. Linnarson, Royal Institute of Technology, Stockholm, Sweden and Professor D. Cockayne, University of Oxford, United Kingdom

**Drs J. Wong-Leung, H.H. Tan and M. Gao, Ms V. Coleman, Professors J.S. Williams and C. Jagadish**

**Project:** Electron Microscopy Study of Defects in Ion Implanted Semiconductors

**Partners:** Drs J. Zou, University of Queensland, J. FitzGerald, Australian National University and Professor D.J.H. Cockayne, Oxford University, United Kingdom

**Dr W.S. Woolcock**

**Project:** The Pion-Nucleon System at Low Energies

**Partners:** Professor G. Rasche, University of Zurich, Switzerland and Dr E. Matsinos, Varian, Baden, Switzerland

**Dr C. Zha and Professor B. Luther-Davies**

**Project:** Novel Inorganic-organic Composite Materials for Optic-electronic Applications

**Partner:** Professor Liu Hanxing, Wuhan University of Technology, China



## Appendix – Grants and Contracts

### *Asian Office of Aerospace Research and Development*

Dr M. Sellars  
*Investigation of Decoherence Control on a Solid State Qubit*  
2006 \$ 45740

### *AusIndustry*

#### **Innovation Access Program**

Professor J.S. Williams  
*Establishment of the Australian Materials Technology Network*  
2003 – 2006 \$2,683,520

### *Auspace Ltd*

Dr C. Charles  
*Magnetically Steerable Helicon Double Layer Plasma Thruster ("HDLT")*  
2006 - 2007 \$ 229,091

### *Australian Nuclear Science & Technology Organisation*

#### **Access to Major Research Facilities Program**

Ms R. Giulian, Dr P. Kluth and Mr B. Johannessen  
*Metallic Nanocrystals Manipulated by Ion Irradiation: A Structural Study using EXAFS*  
2006 \$ 6,530

Dr P. Kluth and Mr B. Johannessen  
*Vibrational Properties of Crystalline and Amorphous Metallic NCs Studied using Temperature  
Dependant EXAFS*  
2006 \$ 4,280

Dr G.J. Lane, Professor G.D. Dracoulis and Mr R. Hughes  
*Limits of K-Isomerism and Astrophysical Processes in Neutron-Rich Tungsten, Rhenium  
& Nuclei*  
2006 \$ 12,000

Mr D. Sprouster and Dr L. Araujo  
*Study of Vibrational Properties of Ge Nano Crystals using EXAFS*  
2006 \$ 4,280

Dr A. Wilson and Mr P.M. Davidson  
*Search for Magnetic Rotation and Superdeformation in 200Po*  
2005 – 2006 \$ 12,000

Dr M. Ridgway <i>Amorphisation of Semiconductors by Swift Heavy-ion Irradiation</i> 2006	\$ 6,680
Dr M. Ridgway <i>Structure of the Amorphous Phase Formed by Swift Heavy-ion Irradiation of Compound Semiconductors</i> 2006	\$ 450
Dr J. Sullivan and Professor P. Hammond <i>Lifetime-resolved Fluorescence Spectroscopy of Inner-shell Excitation Decay Processes</i> 2006	\$ 5,100

### **Australian Synchrotron Research Program – ANSTO Travel Grants**

Dr P. Kluth, Ms R. Guilian and Mr D. Sprouster <i>XAFS Measurements of the Local Atomic Structure of Metallic Nanocrystals: Formation and Swift Heavy Ion Irradiation</i> 2006	\$ 6,530
Dr P. Kluth, Ms R. Guilian, Mr D. Sprouster and Dr M.C. Ridgway <i>SAXS Analysis of Aligned Metal Nanorods Generated by Ion Implantation and Swift Heavy Ion Irradiation</i> 2006	\$ 9,540
Dr M. Ridgway, Mr Z. Hussain and Ms C. Schnohr <i>Amorphisation of Semiconductors by Swift Heavy-ion Irradiation</i> 2006	\$ 6,680
Mr D. Sprouster and Dr L. Araujo <i>Study of Vibrational Properties of Ge Nanocrystals using EXAFS. Part II</i> 2006	\$ 4,280

### ***Australian Research Council (ARC) Grants and Awards***

#### **ARC Centres of Excellence Grants**

Dr K.G.H. Baldwin and Dr A.G. Truscott / Professor Y. Kivshar <i>Australian Centre for Quantum-Atom-Optics (ACQAO)</i> 2003 – 2007 (ANU Total)	(\$10,950,000)
<i>RSPSE Projects: Metastable BEC / Optical Lattices</i> 2003 – 2007 (RSPSE Share)	\$3,649,000
Professor S.J. Buckman, Dr J.P. Sullivan, et al <i>ARC Centre of Excellence in Antimatter-Matter Studies (CAMS)</i> 2005 – 2009	\$7,000,000
University of Sydney Professor Y.S. Kivshar, Dr W. Krolikowski and Professor B. Luther-Davies (ANU Participants) <i>Centre for Ultrahighband Devices for Optical Systems (CUDOS)</i> 2003 – 2007 (Total)	(\$11,513,850)
2003 – 2007 (RSPSE Share)	\$2,967,000

University of Queensland  
Dr Y. Chen (ANU Participant)  
*Australian Centre for Functional Nanomaterials*  
2003 - 2007 (Total) (\$6,380,544)  
2003 - 2007 (RSPSE Share) \$ 452,256

### **ARC Discovery Project Grants**

Professor N.N. Akhmediev  
*Bifurcations of Dissipative Solitons*  
2006 - 2008 \$ 310,000

Dr T. Aste and Dr T.J. Senden  
*Granular Materials in 3D: Structural, Mechanical and Dynamic Properties from the Grain-scale and Beyond*  
2004 - 2006 \$ 294,000

Dr K.G.H. Baldwin, Professor B.J. Orr and Professor E.E. Eyler  
*Precision Laser Spectroscopy of Highly Excited Atoms and Molecules*  
2006 - 2008 \$ 225,000

Professor V. Bazhanov, Professor M.T. Batchelor, Professor M. Gould and Dr J. Links  
*The Mathematical Analysis of Ultracold Quantum Gases*  
2006 - 2008 \$ 501,000

Dr B.D. Blackwell and Dr M. Hegland  
*High-performance Computational Data-mining Techniques for Feature Detection in Complex Time Series from Large-scale, Networked Plasma Experiments*  
2004 - 2006 \$ 195,000

Professor R.W. Boswell and Dr C. Charles  
*Development of New Membrane-electrode Assemblies for Low Temperature Fuel Cells*  
2005 - 2007 \$ 898,000

Professor P.G. Bouwknegt and Dr M. Varghese  
*Global Aspects of Dualities in String Theory in the Presence of Background Fluxes*  
2004 - 2006 \$ 129,000

Professor S.J. Buckman, Dr J.P. Sullivan, Dr J. Lower and Dr P. Burrow  
*Electron Interactions with Biomolecules*  
2006 - 2008 \$ 310,000

Dr Y. Chen and Professor L.T. Chadderton  
*Formation Mechanism and Controlled Growth of Carbon Nanotubes*  
2004 - 2006 \$ 260,000

Dr M. Dasgupta, Professor D. Hinde, Dr J. Liang and Professor K.H. Schmidt  
*Reaching the Superheavy Elements: A New Approach to Investigate Superheavy Element Formation*  
2006 - 2008 \$ 390,000

Professor R.L. Dewar, Dr R. Ball and Dr J.S. Frederiksen

<i>Studies of Turbulence and Coherent Structures in Quasi Two-dimensional Plasmas and Fluids</i> 2003 – 2007	\$ 605,000
Professor R.L. Dewar and Dr S. Hudson <i>Existence and Stability of a Model for Three Dimensional Toroidal Plasma Equilibria</i> 2004 – 2006	\$ 255,000
Dr T. Di Matteo <i>Physics of Risk: New Tools to Survey the Australian Market and Beyond</i> 2005 – 2007	\$ 220,000
Professor G.D. Dracoulis, Professor A.P. Byrne, Dr T. Kibédi, Dr R.A. Bark, Professor P.M. Walker and Dr J. Gerl <i>Isomers as Probes of Nuclear Structure and Sources of Energetic Protons</i> 2003 – 2007	\$ 402,000
Professor G.D. Dracoulis, Dr G.J. Lane and Dr T. Kibédi <i>Characterising Nuclei Far from Stability with a Novel Recoil Spectrometer</i> 2004 – 2006	\$ 240,000
Dr S.T. Gibson <i>Imaging Chemical Reaction Dynamics from the Transition State to Reaction Products</i> 2006 – 2008	\$ 330,000
Dr S.T. Gibson and Professor B.R. Lewis <i>Reaction Transition States of Halide-cluster Complexes via Velocity-map Imaging of Photoelectrons</i> 2004 – 2006	\$ 300,000
Professor D.J. Hinde, Dr M. Dasgupta, Dr M. Freer, Professor J.A. Tostevin and Dr K. Hagino <i>Breakup and Fusion of Stable and Radioactive Nuclei</i> 2005 – 2007	\$ 600,000
Dr J. Howard and Dr M. Persson <i>Development of Microwave Tomography Techniques and Inverse Methods for Biomedical Imaging</i> 2006 – 2008	\$ 370,000
Professor S.T. Hyde, Associate Professor H. Hasegawa and Professor N. Hadjichristidis <i>Self-assembled Polyphiles: Molecular Nanopattern</i> 2006 – 2008	\$ 400,000
Professor C. Jagadish <i>Fabrication and Monolithic Integration of II-V Semiconductor Photonic Devices using Impurity Free Interdiffusion</i> 2003 – 2006	\$ 510,000
Professor C. Jagadish and Dr H.H. Tan <i>Selective Area Growth of Semiconductor Quantum Dots for Optoelectronic Applications</i> 2004 – 2006	\$ 260,000

Dr A.S. Kheifets and Dr J. Ullrich <i>Two Electron Atomic Photo Ionization in Super Strong Electromagnetic Field</i> 2004 – 2006	\$ 225,000
Professor Yu.S. Kivshar <i>Left-handed Metamaterials and Negative Refraction</i> 2005 – 2009	\$1,036,308
Professor M.A. Knackstedt, Professor E. Seeman, Dr A.P. Roberts and Dr C.H. Arns <i>Assessing Bone Quality and Health: Experimental Imaging, Structural Characterisation, and Mechanical Modelling of Bone in 3D</i> 2004 – 2006	\$ 425,000
Professor W. Krolikowski and Dr O. Bang <i>Solitons and Localized Structures in Nonlocal Nonlinear Media</i> 2004 – 2007	\$ 255,000
Professor W. Krolikowski, Dr A.V. Rode and Professor E.G. Gamaly <i>Ultra-high Density Permanent and/or Erasable Optical Memory in Photorefractive Media Formed by Ultrafast Laser Pulses</i> 2006 – 2010	\$ 695,000
Professor B.R. Lewis and Dr W. Ubachs <i>Quantum Mechanics and Planetary Atmospheres</i> 2005 – 2007	\$ 300,000
Professor J.D. Love <i>Miniaturised Adiabatic Light Processing Devices</i> 2004 – 2006	\$ 220,000
Dr J. Lower and Professor E. Weigold <i>Dynamic Correlations and Coherence Effects in Two-electron Emission Processes</i> 2003 – 2006	\$ 380,000
Professor B. Luther-Davies and Dr R. Jarvis <i>Integrated Magneto-optic Waveguide Materials and Devices</i> 2004 – 2007	\$ 400,000
Dr F.P. Mills <i>Photochemistry of the Middle Atmospheres of Venus and the Earth</i> 2005 – 2007	\$ 260,000
Dr C.R. Morton <i>Development of Advanced Detection Systems for Accelerator Mass Spectrometry</i> 2004 – 2006	\$ 200,000
Dr M.C. Ridgway <i>Amorphisation of Semiconductor and Elemental Metallic Nanocrystals by Ion Irradiation</i> 2005 – 2007	\$ 367,000

Dr M.C. Ridgway, Professor A.P. Byrne and Professor W. Wesch <i>Amorphous-Phase Formation and Structure in Semiconductor Substrates following Swift Heavy-Ion Irradiation</i> 2006 - 2008	\$ 400,000
Dr A. Rode, Dr A. Christy and Professor B. Luther-Davies <i>Nanoclusters with Extraordinary Properties Made out of Ordinary Materials</i> 2005 - 2007	\$ 362,500
Dr A. Samoc and Dr M. Samoc <i>Polymer Optical Fibres with Controlled Molecular Orientation for Photonic Applications</i> 2005 - 2007	\$ 388,000
Dr M. Sellars <i>Development of a Quantum Computer Based on Solid State Optical Impurity Sites</i> 2003 - 2005	\$ 130,000
Dr M. Sellars and Dr J. Longdell <i>Solid State Optical Quantum Information Technology</i> 2006 - 2008	\$ 540,000
Dr A. Sheppard and Professor W.V. Pinczewski <i>A Dynamic Pore-network Model for Fluid Displacements in Porous Media</i> 2005 - 2007	\$ 268,000
Dr A. Sheppard, Dr V. Robins and Professor K. Mecke <i>3D Image Segmentation and Shape Characterization Driven by Topological Persistence</i> 2006 - 2008	\$ 310,000
Dr H.H. Tan <i>Photonic Crystal Enhanced Wavelength Selective, Multi-colour Quantum Dot Infrared Photodetectors</i> 2006 - 2008	\$ 388,000
Dr S.G. Tims, Professor L.K. Fifield, Dr G.J. Hancock, Dr R. Bartley and Dr P. Wallbrink <i>Plutonium: A New Tracer of Sediment Transport into the Great Barrier Reef Lagoon</i> 2005 - 2007	\$ 150,000
Dr M. Vos and Dr C. Chatzidimitriou-Dreismann <i>Quantum Entanglement of Protons</i> 2005 - 2007	\$ 280,000
Dr M. Vos, Professor A.S. Kheifets and Dr F. Arzasetiawan <i>Many-electron Dynamics and Electronic Structure of Materials Studies by Electron Momentum Spectroscopy</i> 2006 - 2009	\$ 335,000
Dr D.R. Williams, Dr E.M. Sevick and Professor B.W. Ninham <i>Salt, Sugar and Sequence: The Effect of Molecular Forces on Polymer Conformation</i> 2004 - 2006	\$ 480,000

Professor D.R. Williams and Professor T. Odijk <i>Macromolecular Condensates: From Globules to Toroids and Beyond</i> 2006 - 2008	\$ 270,000
Professor J.S. Williams and Dr M.V. Swain <i>Nanoindentation-induced Phase Transformations and Physical Property Changes in Semiconductors</i> 2004 - 2008	\$ 294,000
Professor J.S. Williams, Dr J.C. McCallum, Dr J.Y. Wong-Leung, Dr P.J. Simpson and Dr H.L. Gossmann <i>Fundamental Implantation, Epitaxy and Defect Studies in Silicon to Support Ultra-shallow Junction Formation</i> 2006 - 2008	\$ 434,000
Dr A.N. Wilson <i>Superdeformed Nuclei and their Decay: Challenging Nuclear Models and Probing Quantum Tunnelling</i> 2004 - 2006	\$ 140,000
Dr A. Sakellariou and Professor C.D. McFarland <i>Growth of Bioartificial Tissue Containing an Inbuilt Blood Supply</i> 2005 - 2007 (ANU share) University of New South Wales	\$ 42,000 Total grant (\$288,000)

### **ARC Discovery Project Grants and Australian Postdoctoral Fellowships**

Dr C. Arns and P. Callaghan <i>Transport Properties from Nuclear Magnetic Resonance</i> 2005 - 2007	\$ 297,022
Dr T.T. Barrows <i>Cosmogenic Isotopes in Glacial Landscapes: Production Rates and Climate Change</i> 2005 - 2007	\$ 290,000
Dr S.M. Bellm <i>Probing Electron Dynamics in the Molecular Frame</i> 2006 - 2008	\$ 249,000
Professor R.W. Boswell and Dr W. Li (APD Fellowship) <i>Preparation of Silica-based Thin Materials with Large Optical Nonlinearity</i> 2005 - 2007	\$ 315,000
Dr Y. Chen and Ms Y.J. Chen (APD Fellowship) <i>Boron Nitride Nanotube Synthesis and Applications</i> 2004 - 2006	\$ 310,000
Dr Q. Gao <i>Bandgap Engineering of Novel (In, Ga) SbN Epitaxial Semiconductors for High Performance Long Wavelength Optoelectronic Devices</i> 2006 - 2008	\$ 330,000

Dr P. Kluth <i>Structural Characterisation of Ion Beam Synthesized Metallic Nanocrystals using Advanced Synchrotron Based Analytical Techniques</i> 2005 – 2008	\$ 248,000
Dr M.M. Kohonen <i>Wet Granular Materials: A Three-dimensional Study Using X-ray Microtomography</i> 2005 – 2007	\$ 280,000
Dr Q. Li <i>Carrier Dynamics in III-V Semiconductor Quantum Dots and Nanostructures</i> 2006 - 2008	\$ 310,000
<b>ARC Discovery Project Grant and Australian Professorial Fellowship</b> Professor M.T. Batchelor <i>The Mathematics and Physics of Interacting Systems</i> 2003 – 2007	\$1,011,300
<b>ARC Discovery Project Grants and Australian Research Fellowships</b> Dr V. Craig <i>Surface Adsorption, Repulsion and Attraction: A New Experimental Approach to Surface Forces</i> 2002 – 2006	\$ 573,782
Dr L. Fu (Research Fellowship) and Dr M.B. Johnston <i>Development of High Performance III-V Semiconductor Photoconductive Antennas for Terahertz Applications</i> 2006 - 2008	\$ 480,269
Dr G.J. Lane <i>Structure of Exotic Neutron-rich Nuclei Populated Using Novel Reaction Mechanisms</i> 2003 – 2007	\$ 566,605
Dr D. Neshev (Research Fellowship) and Dr A. Sukhorukov <i>Light Control in Nonlinear Periodic Structures</i> 2004 – 2009	\$ 755,000
Dr T.J. Senden <i>Dynamic Force Microscopy of Small Molecular Assemblies</i> 2002 – 2006	\$ 391,782
Dr J.P. Sullivan <i>Experiments with Antimatter: Investigating Positron Interactions with Atoms, Molecules and Materials</i> 2004 – 2008	\$ 500,000
Dr A.G. Truscott (Research Fellowship) and Dr J.J. Hope <i>How Does a Bose Einstein Condensate Develop Phase?</i> 2003 – 2007	\$1,056,605



## ARC Discovery Project Grants and QEII Fellowships

Professor S.T. Hyde, Dr T. Aste and Dr T. Di Matteo (QEII Fellowship)  
*The Architecture of Networks: Characterisation and Visualisation of Complex Systems as Fluctuating Networks*  
2003 – 2007 \$ 687,275

Dr J. Wong-Leung (QEII Fellowship) and Professor B.G. Svensson  
*Ion Implantation Processing in Silicon Carbide for Microelectronic Applications*  
2002 – 2006 \$ 619,411

## ARC Federation Fellowship

Professor S. Hyde  
*Self-assembly and Complexity: Networks and Patterns from Materials to Markets*  
2004 – 2009 \$1,519,710

Professor C. Jagadish  
*Ordered Semiconductor Nanostructures for Electronics and Photonics Applications*  
2004 – 2009 \$1,519,710

Professor Y. Kivshar  
*Nonlinear Photonics and All-optical Technologies*  
October 2002 – November 2007 \$1,448,515

Professor B. Luther-Davies  
*Creation of a Novel Photonic and Nanostructured Materials by Ablation of Solids with Ultra Fast Lasers*  
2002 – 2007 \$1,481,765

## ARC Linkage Infrastructure Equipment and Facilities

Dr T.J. Senden, Professor M.A. Knackstedt, Professor W.V. Pinczewski, Professor S.T. Hyde, Dr A.S. Sakellariou, Dr A.P. Sheppard, Dr V. Robins, Dr C.H. Arns, Dr T. Aste, Dr R.M. Sok, Dr A. Limaye and Dr Y. Cinar  
*An Advanced Computed Tomography Facility - High Capacity and High Resolution for Dynamic Studies in Porous and Granular Materials*  
2006 \$ 240,000

Professor C. Jagadish et al.  
*National Nanolithography Facility*  
2006 \$1,000,000

## ARC Linkage International Award

Professor M.T. Batchelor, Dr A. Kuniba and Dr M. Takahashi  
*Physical Properties of Exactly Solved Quantum Spin Systems*  
2004 – 2007 \$ 56,000

Dr A.S. Kheifets and Dr J. Ullrich  
*Multiple Atomic Photoionisation in Superstrong Electromagnetic Field*  
2004 – 2007 \$ 13,800

Dr J. P. Sullivan, Professor S.J. Buckman et al.  
Jointly with Flinders University  
*Positron Processes – From Basic to Applied Science*  
2005 – 2007 \$ 26,000

#### **ARC Linkage International Fellowship**

Professor S.J. Buckman, Dr J.C. Lower and Dr K. Zrost  
*Ionization and Excitation of Excited Helium Atoms*  
2006 \$ 83,000

Dr D.N. Neshev, Professor Y.S. Kivshar and Professor Dr A.A. Dreischuh  
*Singular Optics of Polychromatic Light*  
2006 \$ 51,000

#### **ARC Linkage Project Grants**

Dr G.G. Borg, Professor J.H. Harris and Dr H.M Jones  
*VHF Wireless Technologies for Last-mile Internet Access in Regional Australia*  
2003 – 2006 \$ 138,198  
Partner Contribution, NJH Consulting Pty Ltd \$ 15,000  
Partner Contribution, Standard Communications Pty Ltd \$ 15,000

Professor R.W. Boswell  
*Development of Inert Gas Ion Beams for Fabrication of Nanostructures*  
2003 – 2006 \$ 300,000  
Partner Contribution, FEI Corp, USA  
2003 – 2006 \$ 220,000

Professor R.G. Elliman, Dr S. Johnson and Dr S. Cunningham  
*Implant Isolation of III-V Compound Semiconductor Devices and Structures*  
2005 – 2007 \$ 210,000  
Partner Contribution, EpiTactix Pty Ltd \$ 50,000

Professor B. Luther-Davies, Dr R. Charters and Dr D. Kukulj  
*Advanced Siloxane Waveguide Devices for Telecommunications*  
2005 – 2008 \$ 350,000  
Partner Contribution, RPO Pty Ltd  
2005 – 2008 \$ 86,500

Professor B. Luther-Davies and Dr V. Kolev  
*A Laser Guide Star using a High Power Synchronously Pumped Optical Parametric Oscillators*  
2004 – 2006 \$ 330,000  
Partner Contribution, Electro-Optic Systems Pty Ltd \$ 153,000

Dr A.V. Rode, Dr K. Baldwin et al  
*Short Pulse Laser Cleaning for Australian Heritage Conservation*  
2006 – 2008 \$ 165,950  
Partner Contribution, Commonwealth Department of Defence, Army History Unit \$ 6,000  
Partner Contribution, Art Gallery of NSW \$ 6,000  
Partner Contribution, Australian War Memorial \$ 22,500

Professor J.S. Williams  
*Towards a High Density Silicon Phase Change Memory Device*  
 2004 – 2007 \$ 665,629  
 Partner Contribution, WRiota Pty Ltd \$ 626,076

**ARC Postdoctoral Fellowship**

Dr T. Alexander  
*Matter-wave Vortices in Engineered Nanostructures*  
 2006 – 2008 \$ 223,020

**ARC QEII Research Fellowship**

Dr H.H. Tan  
*Growth, Characterisation and Fabrication of GalnNAs Lasers*  
 May 2001 – May 2006 \$ 357,590

**ARC Research Network**

Dr R.L. Dewar (Convenor), Dr T. Aste, Professor S.T. Hyde, Dr A. Sakellariou et al  
*Complex Open Systems Network (COSNet)*  
 2004 – 2009 \$1,500,000

Professor C. Jagadish et al.  
*Australian Research Council Nanotechnology Network*  
 2004 – 2009 \$1,900,000

Professor J.S. Williams et al  
*Australian Research Network for Advanced Materials*  
 2004 – 2009 \$1,500,000

Dr C. Kepert (Convenor, University of Sydney), Dr T. Aste and 48 other scientists  
*Molecular and Materials Structure Network*  
 2004 – 2009 (\$1,500,000)  
 2006 (RSPSE Share) \$ 30,000

Associate Professor C. McFarlane (Convenor, University of NSW), Professor M.A. Knackstedt  
 and 48 other scientists  
*ARC Research Network for Tissue Engineering*  
 2004 – 2009 (\$1,500,000)

***BlueScope Steel***

Dr J. Howard  
*Research & Development of Coherence Pyrometry Technology within the Ironmaking Process*  
 2005 – 2006 \$ 15,000

***Commonwealth Scientific Industrial Research Organisation***

Professor R. Boswell and Dr A. Dicks  
*Development of Materials for Advanced Hydrogen Fuel Cells*  
 2006 – 2009 \$ 134,173

## *Department of Education, Science and Training*

### **Australia-China Fund**

Professor C. Jagadish, Dr H.H. Tan, Dr L. Fu and Dr Q. Gao  
*Optical Studies of Single Quantum Dots and Quantum Dot Molecules for Quantum Information Technology*  
2006 - 2009 \$149,600

### **International Sciences Linkage**

Professor R.L. Dewar  
*OECD Global Science Forum Conference on Scientific Challenges for Energy Research*  
2006 \$ 1,180

## *Department of Industry, Tourism and Resources*

### **CRC for Functional Communication Surfaces**

Professor M.A. Knackstedt, Dr T. Senden, Dr V. Craig, Dr R. Roberts and Dr V. Yaminsky  
Program 1: *Fundamental Surface Measurements and Liquid Penetration Sciences*  
July 2001 – June 2008 \$2,864,000

Program 6: *Education, Scholarship*  
July 2001 – June 2008 \$ 525,000

### **Defence Science and Technology Organisation**

Professor C. Jagadish  
*Development of 1.55um Electroabsorption Modulators*  
2005 - 2006 \$ 45,000

Dr M. Sellars, Dr J. Longdell and Professor N. Manson  
*Solid State Quantum Computing*  
2006 \$ 99,000

Dr M. Sellars and Professor N. Manson  
*Quantum Computing Technology Development*  
2005 - 2006 \$ 25,000

### **Digital Core Laboratory Consortium**

Professor M. A. Knackstet and Professor W.V. Pinczewski  
*Industrial Research Consortium Project with International Industry Partners:*  
ADCO, BakerHughes, BP, BHP, Chevron, ExxonMobil, Japan Oil & Gas, Maersk, Petronas, Saudi Aramco, Schlumberger, Shell, Total  
2003 - 2006 \$ 955,000

### **European Projects**

Dr P. Richmond (Chair), Dr T. Aste, Dr T. Di Matteo and more than 100 scientist from 20 European Countries  
*European Union COST – P10 "Physics of Risk"*  
2003 – 2007 (\$9,500,000)

### ***European Space Research and Technology Centre***

Dr O. Sutherland  
*Single Aperture Four Electrode (SAFE) Thruster*  
2005 - 2006 \$ 80,000

### ***Japan Atomic Energy Agency***

Dr J. Howard  
*Development of Fourier Spectrometers for JT-60U Thomson Scattering*  
2006 \$ 37,164

### ***Major Equipment Committee, ANU***

Dr S. Gibson  
*An Optical Parametric Oscillator Light Source for a World-Leading Electron Velocity-map Imaging Spectrometer*  
2006 \$ 156,000

Professor C. Jagadish  
*National Nanolithography Facility*  
2006 \$ 250,000

Dr T.J. Senden, Professor M.A. Knackstedt, Professor W.V. Pinczewski, Professor S.T. Hyde, Dr A.S. Sakellariou, Dr A.P. Sheppard, Dr V. Robins, Dr C.H. Arns, Dr T. Aste, Dr R.M. Sok, Dr A. Limaye and Dr Y. Cinar  
*An Advanced Computed Tomography Facility - High Capacity and High Resolution for Dynamic Studies in Porous and Granular Materials*  
2006 \$ 100,000

Professor J.S. Williams  
*High-Resolution Nanoindentation Analysis for Mechanical and Structural Deformation Studies*  
2006 \$ 87,000

### ***National Plasma Fusion Research Facility***

Professor J. Harris *et al*  
*National Plasma Fusion Research Facility*  
April 1997 - May 2005  
June 2005 - June 2010 \$8,700,000

### ***National Projects***

Italian Ministry of Education Research and Technology Project  
Dr R.N. Mantegna, Dr M. Marsili, Dr M. Bernaschi, Dr E. Scalas, Dr G.M. Gallo, Dr M. Gallegati, Dr V. Marinari, Dr G. Susinno, Dr T. Aste and Dr T. Di Matteo  
*High-frequency Dynamics of Financial Markets*  
2003 - 2006 (\$3,150,000)

***RPO PTY Ltd***

Professor B. Luther-Davies  
Consultancy  
2005 - 2008 \$ 35,000

Professor B. Luther-Davies  
Services Contract  
2005 - 2008 \$ 85,978

***Sale of Equipment, Designed and Built In-house***

Mr A. Hyde and A/Professor T. Senden  
*Water Plasma Cleaner Device - for Plasma Treatment and Cleaning of Surfaces*  
University of British Columbia, Vancouver, Canada  
2006 \$ 22,600

***University of New South Wales***

***Research Consortium***

Professor M. Knackstedt and Professor W.V. Pinszewski  
*High Resolution X-ray CT Scanner*  
2005 - 2011 \$1,092,500

***US Air Force***

Dr M. Samoc  
*Two Photon Absorption Measurements: Establishing Reference Standards*  
2006 \$ 22,298

## Appendix – Interactions with the Faculties

**Dr T.T.Barrows** is on the advisory panel of Michelle Spooner, Department of Earth and Marine Sciences and is in collaboration with P.DeDeckker, M.Spooner, J.Magee and M.Lenahan in the Department of Earth and Marine Sciences.

**Professor M.T.Batchelor** gave 36 lectures and tutorials in *Mathematical Methods II* MATH3322 to 26 students

**Dr B.Blackwell** lectured in *Power Electronics* ENGN4625/6625 in the Faculty of Engineering & Information Technology

**Dr G. Borg** had 100% teaching load, lecturing in *Telecommunications Systems* ENGN3214 and *Engineering 2* ENGN4521/6521 in the CECS

**Professor P.G. Bouwknecht** lectured in *Mathematical Methods I* MATH2306 consisting of 36 lectures and tutorials, to 60 students

**Professor A.P.Byrne** holds a joint appointment with the Department of Physics, Faculty of Science and is currently Head of Department

**Dr C.Charles** gave lectures to a third year *Photonics* course at the Faculty of Physics

**Dr Y.Chen** collaborative research in *Mechanical Property Testing of BN Nanotubes* with Dr Z.Stachurski.

**Professor R.L.Dewar and Dr M.J.Hole** taught *Classical Mechanics* in third year *Advanced Theoretical Physics* and *Nonlinear Dynamics* segment in third year *Theoretical Physics* PHYS3002

**Dr L. Fu** gave a series of guest lectures for the course on *Microelectronic and Photonic Technology* ENGN4507

**Dr D.J.Hinde and Dr R.G.Thomas** supervised Mr F.Zanke an exchange student with the University of Bonn, Germany on his third year physics special research project *Fusion of  $^{50}\text{Ti}$  and  $^{170}\text{Er}$*

**Dr D.J.Hinde, Dr M.Dasgupta and Dr R.G.Thomas** supervised Ms R.Ahlefeldt, physics PhB student in her Advanced Studies project *Sensitivity of Mott scattering to the tail of the nuclear potential*

**Prof S.Hyde** is a Member of the Consultative Committee, Centre for the Science and Engineering of Materials

**Professor C.Jagadish** gave a series of guest lectures for the course on *Microelectronic and Photonic Technology* ENGN 4507

**Dr T.Kibedi** supervised Alan Devlin, Bachelor of Science with Honors in Physics in his project titled *Design of an Internal Conversion Electron Spectrometer*. He also supervised Sandra Isolde Eibenberger in her Research Project *Lens Suppressor for the Super-e: Design, Simulation and Implementation*

**Dr G.J.Lane** taught half of the third year undergraduate physics course PHYS3033 Nuclear Physics. He supervised Boon Fui Lee from the Department of Physics in his Honours Project entitled *High-spin states and K-isomers in <sup>185</sup>Re* and was also an Honours thesis examiner for both the mid year and final year assessment cycles

**Dr N.R.Lobanov**, **Dr D.C.Weisser** and **Prof A.P.Byrne** supervised Temmo Wubbena, a fourth year Physics student from the University of Hannover, Germany

**Professor J.D. Love** gave 36 lectures and tutorials in *Fibre Optic Transmission Systems* PHYS3060/ENGN4513/ENGN6513 to 15 students & 12 lectures in *Advanced Physics* PHYS1201 to 90 students, convened courses on *Optical Waveguide Materials* PHYS3059 *Photonics Work Experience* PHYS3058 and *Semiconductor Devices for Photonics* PHYS3053 and the *Bachelor of Photonics* and *Master of Photonics* degrees and gave two photonics courses PHYS8510/8511 in the *Master of Contemporary Science*

**Professor B.Luther-Davies** gave lectures and a tutorial in PHYS3059 on *Non-silica Planar Waveguides*

**Dr. C.Neto** lectured second year students in a course on *Physical Chemistry* CHEM2102 and designed the course and lectured Chemistry Honours students on *Wetting and Capillarity*

**Dr C.Neto** presented a lecture titled *Flow and Stability of Liquid Thin Films* to the Undergraduate Physics Society in August

**Dr D.Neshev** designed research course work with honours student Mr Francis Bennet from the Physics Faculty

**Dr A. V.Rode** gave lectures and tutorial for the courses PHYS3059

**Dr M.Samoc** presented a series of lectures on *Molecular Fundamentals of Photonics and Nanophotonics* to Honours students in the Faculties

**Dr M.Shats** lectured in *Plasma Physics and Turbulence* PHYS3041 in the Faculty of Science



**Dr H.H.Tan** gave a series of guest lectures for the course on *Optical Waveguide Materials* PHYS3052 and *Microelectronic and Photonic Technology* ENGN4507

**Dr S.G.Tims** supervised Benton Maxted and Stephen Carter as part of the CSIRO Student Research Scheme

**Dr A.N.Wilson** holds a joint appointment with the Department of Physics, Faculty of Science and supervised Michael East and Samantha Fleming, Department of Physics in their Honours projects. Dr Wilson also supervised Stuart Szigeti and Sebastian Yuen in their Advanced Studies courses based in Nuclear Physics

## Appendix – Internal Management

### *School Committees*

#### *Faculty Board*

Together with meetings of Heads of Departments, Faculty Board is the principal mechanism for advising the Director on a regular basis. The Board spends a significant proportion of its time on issues affecting the environment in which the School operates – especially funding and the impact of industrial and other legislation – rather than on strictly academic issues. Members are:

Dr Ken Baldwin, Deputy Director  
Professor Murray Batchelor (Head, TP)  
Dr Boyd Blackwell (Head, PRL-Toro)  
Professor Rod Boswell (Head, PRL-SP3)  
Professor George Dracoulis (Head, NP)  
Professor Rob Elliman (Head, EME)  
Mr Rana Ganguly (School Manager)  
Mrs Helen Hawes (General Staff Representative) (until July)  
Mr Andrew James (Finance Manager)  
Professor Yuri Kivshar (Head, NLPC)  
Professor Mark Knackstedt (Head, AM)  
Professor Brenton Lewis (Head, AMPL)  
Mr Kevin Lonsdale (Facilities & Services Manager)  
Professor John Love (Head, OSG)  
Professor Barry Luther-Davies (Head, LPC)  
Professor Neil Manson, Associate Director (Students)  
Mrs Helen McMartin (HR Manager)  
Mr David Oliver (Student Representative) (from April)  
Ms Wendy Quinn (General Staff Representative) (from August)  
Mr Devin Ramdutt (Student Representative) (until March)  
Professor Jim Williams (Chair)

#### *Faculty*

The Faculty of the School consists of all academic staff, including long-term visitors and postgraduate students. Faculty functions as a means for informing academic staff on activities within the School. General staff may attend. Meets irregularly.

Professor Rod Boswell (Chair)

### *Heads of Departments*

Heads of Departments meet with the Director throughout the year as needed to discuss specific issues.

Dr Ken Baldwin, Deputy Director  
Mr Rana Ganguly, School Manager  
Professor Neil Manson, Associate Director (Students)  
Professor Jim Williams (Chair)  
Heads of Departments/Centres

### *Other School Advisory Groups and Committees*

#### *ARC and Major Equipment Coordination*

*Coordinated by Chair as required*

Professor Brenton Lewis (Chair)

#### *Budget Strategy Advisory Group*

Professor Stephen Buckman  
Mr Rana Ganguly  
Mr Andrew James  
Professor Jim Williams (Chair)

#### *Commercialisation Advisory Group*

*Ad hoc committee*

A/Professor Tim Senden (Chair)

#### *Colloquium Committee*

*Ad hoc committee*

Professor David Hinde (Chair)

#### *Computing Policy Advisory Committee*

*Ad hoc committee*

Dr Boyd Blackwell (Chair)

#### *Fixed-Term Academic Appointments Committee*

*Reviews all advertised academic appointments beyond one year and recommends appointments to the Director. It also reviews extensions of appointment and appointment without advertisement*

Dr Ken Baldwin (Chair)  
Dr Nanda Dasgupta  
Professor Anatoli Kheifets  
Professor John Love  
Dr David Williams

*General Staff & Facilities Advisory Group*

Mr David Anderson  
Dr Ken Baldwin (Chair)  
Mr Graeme Cornish  
Professor Keith Fifield  
Mr Rana Ganguly  
Ms Gillian Harman  
Mr James Irwin  
Mr Kevin Lonsdale  
Mrs Helen McMartin  
Ms Renee Vercoe  
Dr David Weisser

*Local Promotions Committee*

Professor Aidan Byrne (Chair)  
Professor Andres Cuevas  
Professor Adrienne Hardham  
Professor David Hinde  
Professor Mark Knackstedt  
Professor Neil Manson  
Professor Jim Williams

*Occupational Health & Safety Committee*

*The committee meets three to four times per year*

Mr David Anderson  
Mr Michael Blacksell  
Mr Alan Cooper  
Dr Keith Fifield  
Mr Anthony Hyde (Chair)  
Mr Kevin Lonsdale  
Mr Gary Picker  
Ms Anita Smith  
Dr Matt Sellars  
Dr Maarten Vos

*By invitation*

Mr Tom Halstead (EME)  
Mr Roy Schmid (ANU OH&S Unit)

*School Awards and Nominations Committee*

Professor Bob Crompton  
Professor Neville Fletcher  
Professor Chennupati Jagadish (Chair)  
Professor Yuri Kivshar  
Dr David Williams

*School Environmental Committee*

Mr Rana Ganguly  
Ms Helen Hawes  
Mr David Kelly  
Mr Kevin Lonsdale (Chair)  
Mrs Marj O'Neill  
Ms Lyndell Paseka  
Dr Adrian Sheppard  
Mr Nathanael Smith  
Mr Ken Staples

*By Invitation*

Mr John Sullivan (ANU Facilities and Services)

*School Resource Review Committee*

Professor Murray Batchelor  
Professor Stephen Buckman (Chair)  
Professor George Dracoulis  
Professor Robert Elliman  
Mr Rana Ganguly  
Professor Jeffrey Harris  
Professor Brenton Lewis  
Mr Kevin Lonsdale

*School Space Committee*

Dr Vince Craig (Chair)  
Professor Rob Elliman  
Mr Rana Ganguly  
Dr Steve Gibson  
Mr Kevin Lonsdale  
Dr David Weisser

*Student Advisory Group*

Professor Aidan Byrne  
Ms Anna Cirjak  
Dr Nanda Dasgupta  
Dr John Howard  
Professor Neil Manson (Chair)  
Dr Mark Ridgway

## Appendix – Invited Conference Presentations & Lectures

*Presenter of contributed paper is underlined  
(by date order)*

### International Conference on Electronic & Photonic Materials, Devices and Systems

Kolkata, 4–6 January

Tan H. - *Growth and Interdiffusion of Semiconductor Quantum Dots for Photonic Integration Applications*

### Lecture at Canberra Physics Summer School

Canberra, 16–20 January

Shats M. - *Experimental Studies of Plasma Turbulence*

### International Conference on Reactive Plasmas

Matsushima, Japan, 23–27 January

Buckman S.J. - *Measurements of Electron Collision Cross Sections of Relevance to Plasma and Gas Discharge Physics*

### International Workshop Dissipative Solitons

Dresden, Germany, 23–29 January

Krolikowski W. - *Nonlocal Solitons*

Akhmediev N. - *Dissipative Solitons*

### International Conference on Reactive Plasmas and Symposium on Plasma Processing

Sendai, Japan, 24–27 January

Charles C. - *Large Area Generation of Supersonic Plasma Beams; Application to Surface Functionalisation*

### International Seminar on Progress and Excitement in AMO Physics

Tokyo, Japan, January

Kivshar Y. - *Localization of Matter Waves and Light in Optical Lattices*

### Conference in Optoelectronics, Photonic Bandgap Materials and Devices

California, United States, January

Shadrivov I. - *Photonic Crystals with Negative Index Materials*

### Gaseous Electronics Meeting

Batemans Bay, 6–9 February

Buckman S.J. - *Gaseous Electronics and Positronics: Applications of Electrons & Positrons in Biology and Medicine*

Howard J. - *Imaging Plasma Spectroscopy using High-Resolution, High-Speed Optical Coherence-based Methods*

### Meetings at 30<sup>th</sup> Condensed Matter and Materials

Wagga Wagga, 7–10 February

Chen Y. - *Patterned Growth of Carbon and Boron Nitride Nanotubes*

### Australian-Italian Workshop on Statistical Physics, Statistical Systems out of Equilibrium: Random Systems and Complex Fluids

Gold Coast, 13–15 February

Batchelor M.I. - *Stromatolites: a Mathematical Physicist's Adventures in Paleo/Geo/Astro/Biology*

Dewar R.L., Nührenberg C. and Tatsuno T. – *Quantum Chaos Analysis of the Ideal Interchange Spectrum in a Stellarator*

**Lecture at NUPP Summer School of the Australian Institute of Physics**

Melbourne, February

Diaz-Torres A. – *Theory of competition between fusion and quasi-fission in a heavy fusing system*

**Workshop on Nuclear Structure and Decay Data: Theory and Evaluation**

Trieste, Italy, 20 February–3 March

Kibedi T. – *Experimental techniques to deduce  $J$  – New developments in characterizing nuclei far from stability*  
– *BRICC: New Theoretical Conversion Coefficients*

**Topical Conference on Complex Reservoirs, Society of Petrophysicists and Well Log Analysts**

Kuala Lumpur, Malaysia, 1–3 March

Knackstedt M.A. – *Can NMR Interpretation be enhanced by 3D pore scale imaging studies?*

**Exxon Mobil Rock Physics Workshop**

Texas, United States, 4 March

Knackstedt M.A. – *3D Pore Space imaging, grain & pore network extractions and prediction of petrophysical properties*

**Decay Data Evaluation Project**

France, 6–10 March

Kibedi T. – *BRICC: New Theoretical Conversion Coefficients*

**FUSION06: Reaction Mechanisms and Nuclear Structure at the Coulomb Barrier**

Venice, Italy 19–23 March

Dasgupta M. – *Fusion Near and Below the barrier: new results and challenges*

Diaz-Torres A. – *Competition between Fusion and Quasi-fission in a Heavy Fusing System within a Quantum-statistical Approach*

Hinde D.J. – *Enhancement and Suppression of Fusion in Reactions Forming Heavy Nuclei*

Rodriguez M.D. – *Measurements of fusion excitation functions using a novel superconducting solenoid*

**ACS National Meeting**

Atlanta, United States, 26–30 March

Kibedi T. – *BRICC: New Theoretical Conversion Coefficients*

**Lectures at Duke University, North Carolina State University, University of North Carolina**

United States, 31 March

Kibedi T. – *BRICC: New Theoretical Conversion Coefficients*

**Perspectives in Mathematical and Theoretical Physics**

London, 10–11 March

Batchelor M.T. – *Anyons*

**Workshop on Topology and Analysis in Interaction**

Oberwolfach, Germany, 12–19 March

Bouwknegt P. – *T-duality and Generalized Geometry*

**Photonics Europe**

Strasbourg, Germany, 3–7 April

Tan H. – *Quantum Dots and Nanowires for Optoelectronic Device Applications*

**Spring Meeting of the Materials Research Society**

San Francisco, United States, 17-21 April

Elliman R.G. - *Optical Properties of Er-doped Silicon-Rich Oxides*

**Sherwood Fusion Theory Conference**

Dallas, United States, 22-25 April

Dewar R.L., Hudson, S.R. and Hole, M.J. - *Piecewise-Beltrami MHD Equilibria*

**Ion Beam Science**

Copenhagen, Denmark, 1-5 May

Williams J.S., Azevedo G. and Kinomura A. - *Some Ion-beam Modification Issues: Ion-Induced Amorphisation and Crystallisation of Silicon*

**Workshop of Plasma Centres of Excellence**

Potsdam, Germany, 3-6 May

Boswell R. - *Fuel Cells and plasma processing*

**SPIE International Conference on Laser Ablation**

New Mexico, United States, 7-12 May

Gamaly E.G. - *equilibrium transformations of solids induced by femtosecond laser pulses-coherent displacement of atoms*

Gamaly E.G., Uteza O.P., Rode A.V., Samoc M., Luther-Davies B., - *Non-equilibrium transformations of solids induced by femtosecond laser pulses*

Samoc M., Samoc A., Miniewicz A., Markowicz P.P. and Prasad P.N. - *Polarization dependences of nonlinear absorption and refraction in organic chromophores*

**Workshop on Algebraic Geometry and Physics**

Vienna, Austria, 9-13 May

Bouwknegt P. - *T-Duality and Generalized Geometry*

**Conference on Lasers and Electro Optics/Quantum Electronics and Laser Science Conference and Photonic Applications Systems Technologies**

California, United States, 22-26 May

Luther-Davies B. - *Nonlinear materials and devices for optical communications systems*

**International Congress on Plasma Physics**

Kiev, Ukraine, 22-26 May

Charles C. - *Laboratory plasmas applied to the hydrogen economy (fuel cells)*

**Australian National Science Graduate Conference**

Sydney, 26-28 May

Jagadish J. - *Compound Semiconductor Optoelectronics and Nanotechnology*

**Nonlinear Physics and Mathematics**

Kiev, Ukraine, May

Kivshar Y. - *Nonlinear optics and gap solitons in periodic photonic structures*

**Bubble Coalescence in Mixed Electrolyte Systems**

Seoul, South Korea, 4-9 June

Craig V. - *Surfactants in Solution 2006*



**XXIX European Conference on Laser Interaction with Matter**

Madrid, Spain, 11-16 June

Gamaly E. - *Laser-induced micro-explosion inside of sapphire crystal: Evidence of Multi-Megabar pressure*

Gamaly E., Joudkazis S., Misawa H., Luther-Davies B., Rode A., Hallo L., Nicolai P. and Tikhonchuk V. - *Laser-induced micro-explosion inside of sapphire crystal: Evidence of Multi-Megabar pressure*

**ACS Colloid and Surface Science Symposium**

Boulder, United States, 18-21 June

Hyde S. and Oguey C. - *Enumeration of domain structures of mikto-arm molecular assemblies*

**International Conference on Transparent Optical Networks**

Nottingham, United Kingdom, 18-22 June

Gao Q., - *Quantum Dots and Nanowires for Optoelectronic Device Applications*

**International Conference DygraM, Dynamique des Milieux Granulaire, Granular dynamics, jamming, theology and instabilities**

Rennes, France, 19-23 June

Aste T. - *Scale Invariance and Extensivity in the Statistical Properties of Sphere Packs*

**International Conference on Many Particle Spectroscopy of Atoms, Molecules, Clusters and Surfaces**

Rome, Italy, 22-24 June

Kheifets A. - *Spectral Functions of Solids from Many-Body Calculation and EMS Measurements*

**International Workshop on Electric Fields, Structures and Relaxation in Plasmas**

Rome, Italy, 25-27 June

Shats M. - *Zonal Flows, GAM and radial electric field in the H-1 heliac*

Xia H. - *Spectral transfer in plasma turbulence*

**Annual General Meeting - International Fine Particle Research Institute**

Santa Barbara, United States, 26-29 June

Craig V. - *Determination of Interactions between Mineral Surfaces at High Ionic Strength*

**ISOPL4 Conference**

Dingle, Ireland, 27-30 June

Samoc M., Samoc A., Miniewicz A., Markowicz P. and Prasad P. - *Polarization dependent nonlinear absorption and refraction*

**Gordon Conference on Chemistry at Interfaces**

Maine, United States, June

Ninham B.W. - *Physical Chemistry: the current catastrophe in theories, and what we are doing about it*

**XII Conference on Laser Optics**

St Petersburg, Russia, June

Sukhorukov A.A., Kivshar Y.S. - *Slow-light diffraction management and optical bullets in nonlinear Bragg-grating waveguide arrays*

**Workshop on Ion Beam Studies of Nanomaterials: Synthesis, Modification and Characterization**

Trieste, Italy, 26 June-1 July

Gao Q., - *Quantum Wells/Dots and Nanowires for Optoelectronic Device Applications*

**Asia-Pacific Conference on Plasma Science and Technology**

in conjunction with 19<sup>th</sup> Symposium on Plasma Science for Materials

Cairns, 2-5 July

Sutherland O. - *The Development of Plasmalron Sources: from nanotechnology to Space Propulsion*

**International Conference on Radioactive Nuclear Beams**

Italy, 3-7 July

Stuchbery A.E., Mantica P.F. – *Nuclear structure of neutron-rich nuclei near closed shells from excited-state g-factor measurements*

**International Conference on Nanoscience and Nanotechnology**

Brisbane, 3-7 July

Williams J.S. - *Formation of Nanocavities and Nanoparticles in Si and SiO<sub>2</sub> by Ion-Beam Processing*

**International Conference on Symmetry Methods in Physics**

Yerevan, Armenia, 3-8 July

Kun S. - *Cross symmetry phase relaxation and quantum classical transition in complex collisions*

**International Conference on the Electrical, Transport and Optical Properties of Inhomogeneous Media**

Sydney, 9-13 July

Hyde S.T., Corkery R., Deng Y., Schröder G.E. - *Ordered self-assembled sponges in vivo and in vitro: some observations and modeling*

Kivshar Y. - *Nonlinear Effects in periodic Photonic Structures and Metamaterials*

**Australian Optical Society Meeting**

Melbourne, 10-13 July

Ostrovskaya E. - *Nonlinear Dynamics of Bose-Einstein Condensates*

Dreischuh A. - *Femtosecond Lasers in the Singular Optics,*

Garanovich I., Sukhorukov A., Kivshar Y. - *Surface Multi-gap Solitons in Nonlinear Waveguide Arrays*

**Dynamics Days Asia-Pacific 4**

Pohang, Korea, 12-14 July

Dewar R.L., Nührenberg, C. and Tatsuno, T.. – *Quantum Chaos Analysis of the Ideal Interchange Spectrum in a Stellarator*

**Workshop on Non-equilibrium statistical mechanics & turbulence**

Warwick, United Kingdom, 15-21 July

Shats M. – *Comparative experimental study of quasi-2D turbulence in fluids and plasma*

**IEEE Nanotechnology Conference**

Cincinnati, 17-20 July

Jagadish C. - *Quantum Dot based Integrated Optoelectronic Devices*

**International Conference on Optical & Optoelectronic Properties of Materials and Applications**

Darwin, 17-21 July

Tan H. - *Quantum Dots and Nanowires for Optoelectronic Device Applications*

Fischer R., Neshev D., Lopez-Aguayo S., Desyatnikov A., Sukhorukov A., Krolikowski W., Kivshar Y. - *Light localization in azimuthally-modulated Bessel photonic lattices*

Fischer R., Neshev D.N., Lopez-Aguayo S., Desyatnikov A.S., Sukhorukov A.A., Krolikowski W., Kivshar Y. - *Light localization in Bessel photonic lattices*

**Australian Space Science Conference**

Canberra, 19-21 July

Charles C - *From Aurorae to mars, the Australian Helicon Double Layer Thruster*

Charles C - *Design and testing of a dual stage ion engine for deep space applications*

**Nuclear Structure 2006 and Gammasphere Dedication 10<sup>th</sup> Anniversary  
International Conference on Nuclei at the Limits**

Oak Ridge, United States, 22-29 July

Dracoulis G.D. - *High-K States*

Stuchbery A.E. - *Nuclear structure of neutron-rich nuclei from excited-state g-factor measurements on radioactive beams*

**International Laser Physics Workshop**

Lausanne, Switzerland, 24-28 July

Batchelor M.T. - *The 1D Interacting Anyon Gas*

**Mathematics of String Theory**

Adelaide, 26-28 July

Bouwknegt P. - *T Duality and Generalized Geometry*

**Australian Research Network for Advanced Materials Annual Meeting**

Brisbane, 28-30 July

Luther-Davies B. - *Nonlinear Materials and Devices for Optical Communications Systems*

**APS Topical Conference on High-Temperature Plasma Diagnostics**

Virginia, United States, July

Howard J. - *High-speed high-resolution Plasma Spectroscopy using Spatial-multiplex Coherence Imaging Techniques*

**International Workshop on Quantum Chaos**

Mexico, 1 August-15 September

Kun S. - *Cross symmetry phase relaxation and quantum-classical transition in complex collisions*

**Gordon Conference on Flow and Transport in Permeable Media**

New Hampshire, 30 July-4 August

Knackstedt M.A. - *Pore-space imaging, network extraction and prediction of petrophysical properties*

**International Workshop on Transmission of Information and Energy in Nonlinear and Complex Systems**

Singapore, 1-4 August

Das M.P. - *Quantum Transport in Mesoscopic Physics: Facts and Fantasies*

**Public Symposium on the Social Impact of Nanotechnology**

Canberra, 3 August

Jagadish C. - *Nanotechnology: Opportunities and Challenges*

**European Crystallographic Meeting, Satellite Conference on Mathematical and Theoretical Crystallography**

Leuven, Belgium, 4-6 August

Hyde S. - *EPINET: Crystal nets from 2D hyperbolic geometry*

**International Mesostructured Materials Symposium**

Shanghai, China, 5-7 August

Hyde S. - *Mesostructural Topology and Geometry in Surfactant Self-assemblies*

**Australia-China Symposium on Science, Technology and Education**

Sydney, 12-13 August

Jagadish C. - *Compound Semiconductor Optoelectronics and Nanotechnology*

**International Workshop on Reaction Mechanisms induced by Weakly-bound Nuclei**

Rio de Janeiro, Brazil, 25 August

Dasgupta M. - *Angular momentum in incomplete fusion following breakup*

**Public Lecture for Australian Institute of Physics**

Adelaide, 28 August

Boswell R. - *Plasma Power, to Mars and beyond or just to the shops*

**Lecture at University of Brunei**

Brunei, 28 August

Boswell R. - *Fuel Cells and plasma processing*

**IX International Conference on Nucleus-Nucleus Collisions**

Rio de Janeiro, Brazil, 28 August-1 September

Dasgupta M. - *New Challenges in understanding heavy ion fusion*

Hinde D.J. - *Insights into the dynamics of fusion forming heavy elements*

Lane G.J. - *High Spin Isomers - Structure and Limits*

**International Conference on Micro to Nanophotonics**

Romania, August

Neshev D.: *Optical lattices as tunable nonlinear photonic crystals*

**Colloquium on Mobile Magnetic Resonance**

Aachen, Germany, 6-8 September

Arns C. - *A numerical study of diffusional averaging of surface relaxivity heterogeneity in porous rocks*

**European Science Foundation Conference: Complex Fluid Interfaces and NanoFluidics**

Vienna, Austria, 9-13 September

Knackstedt M. - *Fluids and porous structure; the effects of topology, wetting and flow rate*

**SIAM Conference on Nonlinear Waves and Coherent Structures**

Seattle, United States 9-12 September

Sukhorukov A., Johansson M., Kivshar Y. - *Reduced-symmetry Solitons in Square and Triangular Photonic Lattices*

**International Bologna Conference on Magnetic Resonance in Porous Media**

Bologna, Italy, 10-14 September

Callaghan P.T., Arns C.H., Galvosas P., Hunter M., Qiao Y, Washburn K. - *Multidimensional approaches to pulsed gradient spin echo and relaxation NMR in porous media*

**SPIE Europe, Optics/Photonics in Security and Defence, Conference Optical Materials in Defence Systems Technology III**

Stockholm, Sweden, 11-14 September

Samoc A. - *Optical properties of Deoxyribonucleic Acid (DNA) polymer host*

**EIPAM European Research Network Workshop**

Malta, 16-20 September

Buckman S.J. - *Low Energy Electron and Positron Interactions with Atoms and Molecules: Benchmark Measurements and Measurements with Bio-Molecules*

**International School of Complexity on Physics and Socio-Economics Phenomena**  
Erice, Italy, 17-23 September  
Aste T. – *Inside collective fluctuations: how to infer interactions from correlations*

**International Conference on Optical Communications and Networks**  
Chengdu, China, 18-22 September  
Akhmediev N. – *Stationary and Pulsating Optical Bullets in Dissipative Systems*  
Ankiewicz A., Akmediev N. – *Lagrangian Approach to the Theory of Dissipative Solitons with Applications to Optical Transmission Lines*

**Annual Conference of the Australian Mathematical Society**  
Sydney, 23-26 September  
Bouwknegt P. – *Generalized Geometry and T-Duality*

**Lecture at Defence Science and Technology Organisation**  
Salisbury, 28 September  
Boswell R. – *Plasma Thrusters*

**School on Quantum Electronics**  
Bulgaria, September  
Neshev D. – *Optical lattices as nonlinear photonic crystals*

**Conference Molecular Crystals**  
Sulejow, Poland, September  
Samoc M., Samoc A., Luther-Davies B., Cifuentes M., Humphrey M. – *Mniej znane i nowe typy nieliniowo ci optycznych w materiałach molekularnych* (less known and novel types of optical nonlinearities in molecular materials)

**International School-Conference Foundations & Advances in Nonlinear Science**  
Minsk, September  
Garanovich I., Sukhorukov A., Kivshar Y. – *Light control in nonlinear periodic structures, XIII*

**SPWLA international topical conference on NMR Logging**  
China, 9-13 October  
Arns C.H. – *Permeability cross-correlations*  
Arns C.H. – *Inversion issues with numerical and experimental higher-dimensional NMR responses*

**OPERA2015 Symposium on Photonics Technologies for the 7th Framework Programme**  
Poland, 12-14 October  
Samoc M., Samoc A., Luther-Davies B., Humphrey M.G., Cifuentes M.P. – *Nonlinear absorption: materials and mechanisms*

**Towards an Australian Involvement in ITER**  
Manly, 12-13 October  
Dewar R.L. – *Plasma Theory and Modelling in Australia*

**Accelerator Technical Forum Symposium of North Eastern Accelerator Personnel**  
Sydney and Canberra, 15-20 October  
Cooper A. – *Computer control in the 14UD, successes and failures in spark protection*  
Harding A. – *14UD accelerator post reconditioning*  
Lobanov N. – *Beam bunching system at ANU*  
Muirhead A. – *Automated Liquid Nitrogen Filling System*

Wallace H. – *14UD Chain Pulleys*

Weisser D.C. – *Introduction to the ANU Accelerator Facility*

#### **Pacific Basin Nuclear Conference**

Sydney, 15-20 October

Blackwell B.D., Howard J., Hole M.J., Pretty D.G. and Oliver D.R. – *The H-1 National Plasma Fusion Research Facility, and the Prospects for Stellarators in the Quest for Fusion Power*

#### **Asian Conference on Electrical Discharge**

Tokyo, Japan, 16-19 October

Robson R. – *Key Factors in Fluid Modelling of Plasmas and Swarms*

#### **IAEA Fusion Energy Conference, Towards an Australian Involvement in ITER**

Chengdu, China, 16-21 October

Blackwell B.D., Pretty D.G., Harris J.H., Howard J., Hole M.J., Oliver D., Nitsche A., Hegland M., Kumar S.T.A. – *Observations of Alfvénic MHD Activity in the H-1 Helic*

Hole M.J. – *Equilibria and Stability in Partially Reduced Plasma-Vacuum Systems*

#### **International Conference on Photonics in Switching**

Greece, 16-18 October

Luther-Davies B. – *Chalcogenide glasses for all-optical processing*

#### **UWS Symposium and Workshop on NMR Imaging and Diffusion 2006**

Sydney, 21-22 October

Arns C.H. – *A numerical study of diffusional averaging of surface relaxivity heterogeneities*

Arns C.H. – *Techniques for the inversion of higher-dimensional NMR signals*

#### **IEEE Nano Materials and Devices Conference**

Korea, 22-25 October

Jagadish C. – *Quantum Dots and Nanowires for Optoelectronic Device Applications*

#### **Electrochemical Society Meeting**

Cancun, 29 October-3 November

Tan H. – *IIIV Nanowires Grown by Metal-Organic Chemical Vapor Deposition for Optoelectronic Applications*

Gao Q. – *Quantum Dots for Optoelectronic Device Applications*

#### **AAPG International Conference and Exhibition**

Perth, November 5-8

Arns C.H., Ghous A., Senden T.J., Knackstedt M.A. – *Trends in Digital Core Analysis: Treatment of Unresolved Porosity*

#### **ATSE China Australia Energy Symposium**

China, November 7

Boswell R. – *The hydrogen economy and fuel cells*

#### **International Symposium: Perspectives in Nonlinear Physics**

Tokyo, Japan, 20-22 November

Batchelor M.T. – *Cold Quantum Matter and Mathematical Physics*

#### **The Australia-Germany Nanoscience Workshop**

Germany, 21-24 November

Rode A.V. – *Unconventional Magnetism in Carbon Nanoclusters*

**Annual Conference of the ARC Centre for Functional Nanomaterials**

Maroochydore, 30 November–2 December

Chadderton L. – *Swift-heavy Ion Track Electronics (SITE)*

**National Congress of Australian Institute of Physics**

Brisbane, 3–8 December

Batchelor M.T. – *Generalized Exclusion Statistics and Anyons*

Brown M. – *Solitaire: A new generation separator for products of nuclear fusion*

Buckman S.J. – *Low Energy Electron-Atom (Molecule) Collisions: Recent Advances and Applications*

Dasgupta M. – *Enhancement and suppression of quantum tunneling in nuclear collisions*

Diaz-Torres A. – *Dynamical collective potential energy landscape: its impact on the formation of superheavy elements*

Dracoulis G.D. – *Isolating K-mixing effects in isomeric states*

East M.C. – *Dipole bands in  $^{192}\text{Pb}$*

Hinde D.J. – *Dissipation and fluctuations in nuclear fusion forming heavy elements*

Hughes R.O. – *Long-lived nuclear states in neutron-rich thulium isotopes*

Kibedi T. – *Internal Conversion Coefficients – How good are they now?*

Lane G.J. – *High-spin isomer in  $^{204}\text{Hg}$*

Nieminen P. – *A novel spectrometer for characterising exotic nuclei*

Rodrigues M.D. – *Multiphonon couplings in the fusion reactions involving Ni nuclei*

Watanabe H. – *Nuclear Structure of  $^{131}\text{I}$ ,  $^{133}\text{I}$*

Wilson A.N. – *Superdeformation, Hyperdeformation, Wobbling and Magnetic Rotation: nuclear behavior at the highest angular moments.*

Weisser D.C. – *Superconducting resonator for very low velocity heavy ions*

Werner J.T. – *Isomeric and intrinsic states in  $^{184}\text{W}$*

**Canberra International Physics Summer School**

Canberra, 4–8 December

Aste T. – *Insights into disorder: the structure and dynamics of granular materials*

**Radiation Effects in Matter**

Mexico, 5–8 December

Kun S. – *Wave Function Correlations for Thermalized Non-equilibrated Matter*

**SPIE Smart Materials, Micro and Nano Smart Systems**

Adelaide, 11–13 December

Luther-Davies B. – *All-optical Processing for Advanced Communications Systems,*

**Photonics 2006**

India, 13–16 December

Samoc A. – *DNA as a nonlinear photonic material, 8th International Conference on Optoelectronics, Fiber Optics and Photonics*

**Meeting of the Materials Research Society of Japan**

Tokyo, Japan, 8–10 December

Ridgway M.C. – *Ion Beams for Metallic Nanocrystal Formation and Modification*

**Annual Statistical Mechanics Meeting**

Sydney, 10–12 December

Guan X.W. – *Generalized Exclusion Statistics and Quantum Many-Body Systems*

**AINSE/ANBUG Neutron Scattering Symposium**

Lucas Heights, 11–13 December

Lobanov N.R. and Weisser D.C. – *Using Neutron Scattering to Characterize Low Temperature Superconductors for Large Scale SRF Applications*

**Asia Pacific Division of Plasma Physics**

Tokyo, Japan, 12 December

Boswell R. – *Plasma Research in Australia*

**Commad 06**

Perth, December

Kivshar Y. – *Nonlinear light localization in periodic structures*

**Recent Developments in the Study of Radiation Effects in Matter**

Mexico, December

Kun S. – *Thermalized Non-Equilibrated Matter: From Microscopic Systems to Nanostructures.*

**International Toki Conference**

Tokyo, Japan, December

Howard J. – *Doppler spectroscopy and tomography of plasmas*



## Appendix – Individual Outreach Activities

**Dr Christoph Arns** organised the *New Materials and Complexity IV* workshop at Kioloa in November, presented invited talks at the Formation Evaluation Society of Western Australia and the Curtin University, Perth in May, at Baker Hughes, Houston in June, Victoria University, Wellington in August and the Korean Institute of Geology, Mining and Materials, South Korea in September.

**Dr Tomaso Aste** gave an invited talk *Understanding the Geometrical Structure of Disordered Matter* at ETH in Zurich.

**Professor Murray Batchelor** presented a course of 15 lectures on *The Importance of Being Integrable* at the 2006 ICE-EM, Australian Graduate School in Mathematics, University of Queensland in July.

**Dr Boyd Blackwell** made presentations to Engineers Australia in Sydney, the University of Melbourne and Queensland on the *H-1 National Facility* and prospects for Australian involvement in ITER.

**Professor Rod Boswell** initiated a joint project with All Saints School in Southern Queensland to use fuel cells developed at the ANU in their teaching program. Three teachers from All Saints have visited the SP3 laboratory and five students fabricated fuel cells in the laboratory during the year.

**Professor Peter Bouwknecht** gave invited talks to the Section de Physique Théorique, Saclay, France, the Erwin Schrödinger Institute, Vienna, Austria, the Laboratoire de Physique Théorique et Hautes Energies, École Normale Supérieure and Institut Henri Poincaré, Paris, France and the Department of Physics and Astronomy, University of Southern California, Los Angeles, United States.

**Professor Aidan Byrne** presented a number of talks on *Energy and Nuclear Power* These including talks to the National Council of Women (ACT) branch in March, at the *ANU Global Change and the Earth System Symposium* in June, the Liberal Party Northern ACT Branch in August, to Engineers Australia, Sydney in September, Forum Australia, Canberra and the AIP Congress, Brisbane in December. He was also an invited speaker on these issues at the *ANU College of Asia and Pacific Forum* in June, and the *Green Cross Earth Dialogues Forum*, Brisbane in July.

**Dr Ying Chen** participated in the Neutron Diffraction Advisor Committee at ANSTO which provides advice and examines the design and construction of new neutron flight polarization analysis spectrometer (Pelican) and Triple Axis Spectrometer (Taipan) to be used in new Opal reaction at Lucas Heights, NSW.

**Professor Robert Dewar** visited the Santa Fe Institute and the New England Complex Systems Institute in his role as convenor of the ARC Complex Open Systems Network (COSNet). He gave talks at New York University and University of New Hampshire.

**Professor George Dracoulis** was interviewed on *Down Amongst the Nuclei* by Robin Williams, ABC Radio as part of the *In Conversation* series of the Science Show in January. He also gave a number of interviews, including ABC radio, on issues associated with the *Uranium Mining, Processing and Nuclear Energy Review*. He attended the *15<sup>th</sup> Pacific Nuclear Basin Conference*, Sydney in October with other members of the Nuclear Task Force.

**Professor Keith Fifield** held a presentation followed by a tour for the ACT Branch of the Australian Institute of Physics in February.

**Dr Xi-Wen Guan** presented a course of 4 lectures on *Thermodynamic Bethe Ansatz for Quantum Gases* at the University of Science and Technology of China, Hefei, China during June and July and made a research visit to the University of Queensland in July.

**Dr Matthew Hole** chaired the *Australian ITER Forum*, which has been presenting the case for sustainable growth in fusion science capability in Australia, and identifying a possible Australian role in the world's largest science project, ITER. In this capacity he held radio interviews with national and local radio, and wrote and featured in various news articles and press releases. Dr Hole briefed a number of parliamentarians on fusion energy, including Senator Christine Milne of the Greens, and the then Minister for Environment and Heritage, Senator Ian Campbell. He also coordinated a tour by Dr Barry Green, a senior official within the fusion energy unit of the European Commission. The tour, sponsored by COSNet, delivered 13 lectures across nine Australian cities on Fusion Science and ITER. Dr Hole gave an invited lecture to the UK Atomic Energy Authority on Australian efforts to engage ITER and outlined Australian skills area in fusion science.

**Dr Stephen Hyde** gave invited talks at the Department of Chemistry and Biochemistry, Arizona State University, *Tangled (up in) Cubes & (Knotted) Nets from 2D Tilings*, and the Spatial Information Architecture Laboratory at RMIT, *2D Hyperbolic Geometry*.

**Professor Wieslaw Krolikowski** presented lectures on *Soliton in Optical Lattices*, University of Bonn, Germany, Universidad Autonoma De Madrid, Spain and Clausthal Technical University, Clausthal, Germany.

**Dr Greg Lane** hosted, as ACT director for the Siemens Science Experience, 90 year nine students in October for a series of scientific visits at locations which included the Australian National University, University of Canberra, Canberra Institute of Technology and CSIRO.

**Drs Greg Lane, Stephen Tims and Anna Wilson** conducted Summer School laboratories and *14UD Heavy Ion Accelerator Facility* tours for National Youth Science Foundation

groups in January and tours for the gold medal winners of the International Science Olympiad in September.

**Professor John Love** presented a talk on photonics to the ACT Siemens Science & Engineering Experience at ANU for year nine students and a photonics lecture at the University of New South Wales.

**Professor Barry Luther-Davies** presented a colloquium at the University of St Andrews in May on *Chalcogenide Photonics*.

**Dr Franklin Mills** contributed to an ABC Online article reporting on the arrival of the European Space Agency's Venus Express spacecraft at Venus in April and contributed to a BBC Online article reporting on the status of ESA's Venus Express spacecraft in October.

**Dr Robert Robson** met with Queensland Premier Peter Beattie at a Parliament House business function and the Chief Scientist of Queensland, Professor Peter Andrews in August to discuss possible links between the Centre for Antimatter-Matter Studies and scientific enterprises in Queensland.

**Dr Brian Robson** presented talks at University of Melbourne and University of Adelaide.

**Dr Andrei Rode** presented an invited lecture *Magnetic carbon nanocluster growth in a plume formed by MHz-pulse-rate laser ablation* at the Oak Ridge National Laboratory in the United States in May.

**Messrs Christian Rosberg, Robert Fischer, and Ms Amrita Prasad** presented *Optics is Light Work* to year nine students at Trinity High School, Canberra in August.

**Messrs Christian Rosberg, Robert Fischer, Darren Freeman, and Ms Amrita Prasad** made hands-on optics demonstrations and poster presentations at the Australian National University Open Day public event, representing the Research School of Physical Sciences and Engineering and the ANU Student Chapter of the Optical Society of America.

**Dr Anna Samoc** visited the Proprietes Optiques des Materiaux et Applications Laboratory, University of Angers, France in July and performed experiments of optical poling of chromophores in polymer optical fibres and films. She was also invited to give seminars on *Optical second- and third-order nonlinear properties of selected molecular systems* at the Institute of Physical and Theoretical Chemistry, Wroclaw University of Technology, and the Department of Chemistry, Wroclaw University, Poland in October.

**Dr Michael Shats** convened the 19<sup>th</sup> *International Canberra Physics Summer School On Turbulence and Coherent Structures in Fluids, Plasma and Granular Flows* in January and Co-Chaired the workshop on *Turbulence and Coherent Structures* at ANU.

**Dr Stephen Tims** conducted a tour for the ACT Branch of the Australian Institute of Physics in February and supervised Benton Maxted and Stephen Carter as part of the *CSIRO Student Research Scheme 2006*.

**Dr Anna Wilson** attended a Science Education Meeting held by the Federation of Australia Scientific & Technological Sciences in August.

**Dr David Weisser** delivered four lectures on *electrostatic accelerators* at the School of Ion Beam Analysis and Accelerator Applications in Italy in March under the auspices of the International Atomic Energy Agency and the International Centre for Theoretical Physics who provided 20 guest lecturers catering for 42 participants from 21 countries.

## Appendix – Service to Outside Organisations

### Professor N.N. Akhmediev

Chief Organiser, International Workshop Dissipative Solitons, Max Planck Institute for the Physics of Complex Systems, Dresden, Germany, January

Associate Editor, *Optics Express*

### Dr T. Aste

Guest Editor, Special Issue, *Physica A*, Econophysics Colloquium, 2006

Guest Editor, Topical Issue, *European Physical Journal on Econophysics*, 2006

Member, Scientific Committee, 20th Canberra International Physics Summer School, ANU, Canberra, 4-8 December 2006

Member, Scientific Committee, International Conference Complexity and Non-linear Dynamics, Adelaide 10-13 December 2006

### Dr K.G.H. Baldwin

Director at Large, Board, Optical Society of America

Member, International Council on Quantum Electronics

Member, Australian Conference on Optics, Lasers and Spectroscopy Liaison Committee

Member, Australian Optical Society Council

Chair, Science Policy Committee, Federation of Australian Scientific and Technological Societies

Member, Australasian Council on Quantum Electronics

### Dr R. Ball

Executive Committee Member, Australian-French Association for Science and Technology

Organising Committee, SPIE Complexity and Nonlinear Dynamics Conference

### Dr T.T. Barrows

Committee Member, Australasian Quaternary Association

Committee Member, National Committee for Quaternary Research, Academy of Sciences

Core Organising Committee for the XVII International Union INQUA Congress 2007 in Cairns

### Professor M.T. Batchelor

Member, Editorial Board, *Journal of Physics A: Mathematical and General*

Member, Editorial Board, *Journal of Statistical Mechanics*

Member, Lars Onsager Prize Selection Committee

National Organising Committee for Workshop and Summer School: From Statistical Mechanics to Conformal and Quantum Field Theory

### Dr B. Blackwell

Member, International Union on Pure and Applied Physics, Commission on Plasma Physics, C16

Member, Executive Committee, International Energy Agency, Implementing Agreement on the Development of the Stellarator Concept

**Professor R. Boswell**

Organiser and Chair, Asia Pacific Conference on Plasma Science and Technology, Cairns, July  
Everyone from the SP3 group contributed weeks of work to this conference  
Member, Organising Committee, International Conference on Phenomena in Ionised Gasses  
Member, Organising Committee, International Symposium on Plasma Chemistry  
Member, Organising Committee, International Vacuum Congress

**Professor P.G. Bouwknegt**

Co-Organiser, special session on Mathematical Physics at the 50<sup>th</sup> Annual Conference of the Australian Mathematical Society at Macquarie University, Sydney, September  
Co-Organiser, AMSI/CMA/RSPHysSE/IGA Workshop, Mathematics of String Theory 2006, Canberra, July  
Vice President, Australian Mathematical Annual Conference, until September  
Accreditation Committee Member, Australian Mathematical Society  
Vice-Chair, International Union of Pure and Applied Physics, C18 Commission of Mathematical Physics

**Professor S.J. Buckman**

Member, Editorial Board, *New Journal of Physics*  
Chair, ACT Chapter, Fulbright Alumni Association  
Member, Executive Committee, ICPEAC  
Member, Executive Committee, Gaseous Electronics Conference  
Member, Scientific Committee, International Electron Molecule Scattering and Swarms Symposium

**Professor A.P. Byrne**

Member, Australian Academy of Science Physics Panel  
Member, Committee (Sec/Treasurer) Nuclear and Particle Physics Group, Australian Institute of Physics

**Dr C. Charles**

Program Chair, 8th Asia-Pacific Conference on Plasma Science and Technology, Cairns, July  
Chair, Jury, PhD examination at Ecole Polytechnique, Paris, France (Nicolas Plihon)  
Presenter, seminar for undergraduate students Faculty of Physics, ANU and Curtin University Perth on Space Travel and Fuel Cells  
Member, International Committee of International Conference on Plasma Physics  
Member, Asia Pacific Division of Plasma Physics

**Dr Y. Chen**

Co-Chair, Nanomaterials Symposium, International Conference on Nanoscience and Nanotechnology, Brisbane, July  
Committee Member, ARC Centre for Functional Nanomaterials Annual Conference, Newcastle, November  
Member, Management Committee of the Pelican Instrument Advisory Team, ANSTO  
Referee, ARC Discovery, Linkage and Federation Fellow programs

**Dr T. Dall**

Tutor, School of Physical, Environmental and Mathematical Sciences, Australian Defence Force Academy

**Professor M.P. Das**

Member, Editorial Advisory Board, *Journal of Physics, Condensed Matter*

Member, International Advisory Board Workshop on Condensed Matter Theories, Dresden, Germany

Member, International Advisory Board International Conference on Solid State Science and Technology, Kuala Terengganu, Malaysia

Member, International Advisory Board Strongly Correlated System Workshop, Asia-Pacific Centre for Theoretical Physics, Pohang, South Korea

**Dr M. Dasgupta**

Member, International Advisory Committee, Seventh International Conference on Radioactive Nuclear Beams, Cortina D'Ampezzo, Italy

Member, Committee, Nuclear and Particle Physics Group, Australian Institute of Physics

**Professor R.L. Dewar**

Member, International Advisory Committee, International Congress on Plasma Physics

Member, International Advisory Committee, Korean Superconducting Tokamak

Divisional Associate Editor, *Physical Review Letters*, American Physical Society

**Professor G.D. Dracoulis**

Member, Committee, Nuclear and Particle Physics Group, Australian Institute of Physics

Member, Reactor Working Group, Australian Academy of Science

Member, Sectional Committee SC2 Physics and Astronomy, Australian Academy of Science

ANU Representative, Engineering and Physical Sciences Research Council, UK, ANU-EPSC Agreement: beam time allocation

Expert Referee, Engineering and Physical Sciences Research Council, UK, Research Grants, Nuclear Physics Program

Evaluator, Foundation for Research Development, South Africa, Evaluation of Research Outputs of Principal Grant Holders

Reader, Physical and Earth Sciences, Australian Research Council, Discovery and Linkage Projects

National Technical Adviser, 15<sup>th</sup> Pacific Basin Nuclear Conference, Sydney

Session Chair, CGS-12, Notre Dame University, Isomer Workshop

External Assessor, Senior Researcher Evaluation Program, National Research Foundation, South Africa

Senior Fellowship Referee, Engineering and Physical Sciences Research Council, UK

Member, Prime Minister's Task Force on Uranium Mining, Processing & Nuclear Energy, June-December

National Technical Adviser, 15<sup>th</sup> Pacific Basin Nuclear Conference, Sydney, October

Member, Scientific Program Committee, Asian Pacific Accelerator Conference 200, Indore, India

Plenary Session Chair, AIP Congress, Brisbane, December

Divisional Associate Editor, *Physical Review Letters*, American Physical Society

**Professor R. Elliman**

Immediate Past President, Australian Institute of Physics

Member, ACT Branch Committee, Australian Institute of Physics

Secretary, International Committee, International conference, Ion Beam Modification of Materials

Member, International Committee, International conference, Ion Beam Analysis

Member, International Committee, International conference, Atomic Collisions in Solids  
Member, Editorial Advisory Board, *Vacuum*  
Member, Divisional Committee, Electronic Materials and Processing Division, International Union of Vacuum Science Techniques and Applications  
Member, Bachelor of Science Review Committee, University of Newcastle, OzReader, Australian Research Council  
Reviewer, A\*STAR program, Singapore  
Reviewer, FONDECYT program, Chile  
Reviewer, National Research Foundation, South Africa  
Reviewer, Academic Research Fund, National University of Singapore  
Reviewer, Natural Sciences and Engineering Research Council, Canada  
Editor, Proceedings, E-MRS 2006 Symposium D, Silicon-based Photonics, Nice, France, May-June

**Professor L.K. Fifield**

ANU nominee and Deputy Chair, ACT Radiation Council  
Referee, NSF Facility Proposal

**Professor N. Fletcher**

Associate Editor, *Journal of the Acoustical Society of America*  
Member, Editorial Board, *Journal of Sound and Vibration*  
Member, House Committee of the Australian Academy of Science  
Independent Chair, ARC Nanotechnology Network

**Dr S.T. Gibson**

Website Database Management, Australian Optical Society

**Professor D.J. Hinde**

Member, International Advisory Committee, Ninth International Conference on Nucleus-Nucleus Collisions, Brazil  
Member, International Advisory Committee, FUSION06: Reaction Mechanisms and Nuclear Structure at the Coulomb Barrier, Venice, Italy  
Member, Committee, Nuclear and Particle Physics Group, Australian Institute of Physics  
Member, Australian Academy of Science International Committee, Europe  
Chair, Australian Academy of Science Pawsey Medal 2007 Committee  
Member, Australian Institute of Physics Congress Program Committee  
Chair, AINSE/NUPP AIP Congress co-ordinating Committee  
Referee, AIP Congress abstracts and proceedings

**Dr M.J. Hole**

Elected Early Career Scientist, Federation of Australian Scientific and Technological Societies  
Member, Australian Institute of Physics  
Chair, Australian ITER Forum and Workshop

**Dr J. Howard**

Deputy Chair, ACT Branch, Australian Institute of Physics  
Member, Editorial Board, *Plasma Physics and Controlled Fusion*



Member, International Review Panel, W7-X diagnostic systems, Max Planck Institute for Plasma Physics, Greifswald, Germany, July  
Program Chair, Australian ITER Forum Workshop "Towards and Australian Involvement with ITER", Sydney, October

#### **Dr S. Hyde**

Consultant, Commission on Mathematical & Theoretical Crystallography, International Union of Crystallography  
Commissioning Editor, Liquid Crystals section, *Current Opinion in Colloid and Interface Science*

#### **Professor C. Jagadish**

Member, General Advisory Council, Micro and Nanotechnology Commercialisation Education Foundation  
Member, Australia-India Strategic Research Fund Advisory Panel  
Member, Optical Society of America Nick Holonyak, Junior Award Committee  
Vice-President, IEEE Lasers and Electro-Optics Society, Membership and Regional Activities, Asia Pacific  
Member, IEEE Nanotechnology Council Publications Committee  
Member, IEEE Fellow Selection Committee  
Chair, Awards Committee, IEEE Nanotechnology Council  
Member, IEEE LEOS Publications Strategic Planning Committee  
Member, IEEE LEOS Membership Committee  
Member, Electronics Division Executive Committee, The Electrochemical Society, Inc  
Chair, IEEE Nano-Optoelectronics and Nano-Photonics Technical Committee, Nanotechnology Council  
Member, IEEE Spintronics Technical Committee of the Nanotechnology Council  
Member, International Advisory Committee, Photonics 2006, Hyderabad, India, December  
Member, Scientific Advisory Committee, Conference on Optoelectronic and Microelectronic Materials and Devices, Perth, December  
Member, Program Committee, International Semiconductor Laser Conference, September  
Member, Program Committee, Photonics North 2006, Quebec City, Canada  
Member, Program Committee, International Symposium on Compound Semiconductors, Vancouver, Canada  
Co-Chair, 2006 International Conference on Nanoscience and Nanotechnology, Brisbane, July  
Co-Chair, IEEE Nanotechnology Materials and Device Conference, Gyeongju, South Korea, October  
Co-Chair, ECS Symposium on Integrated Optoelectronics, Cancun, Mexico, October  
Co-Organiser, 2006 Fall MRS Symposium on Zinc Oxide and Related Materials, November  
Co-Chair, SPIE Micro and Nanotechnology: Materials, Processes, Packaging and Systems III, MEMS and Photonics IV, Adelaide, December  
Member, Program Committee, Asia Optical Fiber Communication and Optoelectronic Exposition and Conference, Shanghai, October  
Member, Symposium Advisory Board, First Australia-China Symposium on Science, Technology and Education, Sydney, August  
Associate Editor, IEEE/OSA *Journal of Lightwave Technology*  
Member, Editorial Board, *Journal of Materials Science for Electronics*, Springer  
Member, International Editorial Advisory Board, *Journal of Optical Society of Korea*  
Member, Editorial Advisory Board, *Electrochemical and Solid State Letters*, Electrochemical Society

Member, Editorial Advisory Board, *Nanotech Briefs*  
Member, International Advisory Board, IEE Proceedings on Circuits, Devices and Systems  
Member, Editorial Board, *Nanoscale Research Letters*, Springer  
Member, Editorial Board, *Ethics in Nanotechnology*, Springer  
Member, Editorial Board, *Journal of Bionanoscience*, ASP  
Founding Editor, *Online Journal of Nanotechnology*, AtoZ Nano  
Member, International Advisory Committee, COBRA, Inter University Research Institute for Communications Technology, Eindhoven University of Technology, The Netherlands  
Member, International Advisory Board, The MacDiarmid Institute for Advanced Materials and Nanotechnology, Centre of Research Excellence, Victoria University of Wellington and University of Canterbury, New Zealand  
Member, International Advisory Board, National Nanotechnology Centre of Thailand, Bangkok, Thailand

**Dr T. Kibedi**

Australian Representative, International Network of Nuclear Structure and Decay Data Evaluators

**Professor W. Krolikowski**

Guest Editor, *IEEE Journal of Selected Topics in Quantum Optics*, special issue Nonlinear Optics

**Dr S.Y. Kun**

Member, International Advisory Committee, 12th International Conference Symmetry Methods in Physics, Yerevan, Armenia, July

**Professor J.D. Love**

Chair, Steering Committee, Australian Conference on Optical Fibre Technology  
Chair, Organising Committee, 21<sup>st</sup> International Congress on Optics/Australian Optical Society Conference/OptoElectronics Communication Conference/Australian Conference on Optical Fibre Technology, Sydney, July 2008  
Co-Chair, International Symposium on Microstructured Fibres, Singapore, July 2007  
Group Head, ANU, Australian Photonics CRC  
International Editor, *Chinese Journal of Optics & Precision Engineering*  
International Advisor, Network Technology Research Centre, Nanyang Technological University, Singapore  
Member, Organising Committee, Australian Conference on Optical Fibre Technology, Melbourne, July  
Member, Organising Committee, International Conference on Education & Training in Optics & Photonics, Adelaide, December 2009  
Member, Organising Committee, International Conference on Optical Fibre Sensing, Perth, April 2008  
Member, Long Range Advisory Committee, International Conference on Education & Training in Optics & Photonics  
Member, International Advisory Committee, European Conference on Optical Communications  
Member, International Commission for Optics Bureau  
Member, Cambridge-Australia Trust Committee  
Associate Member, Optical Fibre Technology Centre, University of Sydney  
Member, Korea-Australia Photonics Association Committee  
Member, Council of the Australian Optical Society

Member, Executive Committee, Australian-French Association for Science and Technology  
Member, International Advisory Committee, OptoElectronics & Communications  
Conference  
Reader and Assessor, Australian Research Council, Hong Kong Research Council  
Singapore Research Council & Engineering & Physical Sciences Research Council, UK  
Vice-President, International Commission for Optics

**Professor B. Luther-Davies**

Topical Editor, *Journal of the Optical Society of America-B*  
Member, Technical Program Committee, ICONN  
Member, Technical Program Committee, OSA Topical Meeting on Nonlinear Optics, Fundamentals and  
Applications, 2007

**Mr A. Matthews**

Council Member, University of Canberra

**Dr F.P. Mills**

Member, ACT Chapter Committee, Australian Meteorological and Oceanographic Society

**Dr D. Neshev**

Member, Technical Committee, 2006 ACOFT Conference, RMIT, Melbourne, July

**Dr E. Ostrovskaya**

External referee, Chilean Research Fund Council FONDECYT, Physics and Astronomy  
Member, Technical Program Committee, CLEO/Pacific Rim 2007

**Dr M. Ridgway**

Member, International Committee, Radiation Effects in Insulators International Conference Series  
Member, International Committee, Synchrotron Radiation in Materials Science International  
Conference Series  
Member, International Committee, Recent Developments in the Study of Radiation Effects in Matter  
International Conference Series  
Member, Executive Committee, International XAFS Society  
Co-Chair, Symposium on X-Ray/Synchrotron Techniques and Applications, International Conference  
on Electronic Materials-08, Sydney, Australia, July 2008  
Chair, Photon Factory Specialist Committee, Australian Synchrotron Research Program  
Member, Coordinating Committee, Australian Synchrotron Research Program  
Member, Photon Factory Steering Committee, Australian Synchrotron Research Program  
Member, National Scientific Advisory Committee, Australian Synchrotron Project  
Chair, Beamline Advisory Panel (X-ray Absorption Spectroscopy), Australian Synchrotron Project  
Member, Beamlines Advisory Group, Australian Synchrotron Project  
Member, Organising Committee/Program Committee, Australian Synchrotron Research  
Program/Australian Synchrotron Users Meeting, Melbourne, Australia, December 2006  
Member, National Committee on Scientific Directions in Synchrotron-based Science, Australian  
Synchrotron Research Program/Australian Synchrotron Project  
Member, Program Committee, Crystal 25, Hunter Valley, Australia, April 2007

**Dr B.A. Robson**

Member, Australian-French Association for Science and Technology

Member, Bragg Medal Panel of Australian Institute of Physics for 2005 and 2006 awards

**Dr A.V. Rode**

Member, Organising Committee, Pacific International Conference on Applications of Lasers, Melbourne, April

Member, International Advisory Committee, International Conference on Photo-Excited Processes and Applications, Charlottesville, Virginia USA, September

Member, Scientific Program Committee, International Conference on Coherent and Nonlinear Optics co-located with the International Conference on Lasers, Applications, and Technologies, Minsk, May-June 2007

**Dr A. Samoc**

Referee for IOP Publishing

**Dr A.E. Stuchbery**

Reader, Physical and Earth Sciences, Australian Research Council

Co-Supervisor and Member, PhD committee, A.D. Davies, National Superconduction Cyclotron Laboratory, Michigan State University, Michigan, USA and Department of Physics and Astronomy, Michigan State University, USA

**Dr A. Sukhorukov**

Member, Organising Committee, 2006 ARC Centre of Excellence CUDOS, Slow Light, Sydney, June

**Dr H.H. Tan**

Chair, IEEE ACT Chapter of Electron Devices and Laser and Electro-Optics Society

Distinguished Lecturer, IEEE Electron Devices Society

Member, IEEE Nano-Optoelectronics and Nano-Photonics Technical Committee, IEEE Nanotechnology Council

Member, Program Sub-Committee, Annual Meeting, IEEE Lasers and Electro-Optics Society, Montreal

Member, Program Committee for Conference on Optoelectronic and Microelectronic Materials and Devices, Perth

Member, Program Committee, SPIE Conference on Nano and Microtechnology, Materials, Processes, Packaging and Systems III, SPIE International Symposium on Smart Materials, Nano and Micro-Smart Systems, Adelaide

Member, Program Committee, International Conference on Nanoscience and Nanotechnology, Nano-optoelectronics, Nano-photonics symposium, Brisbane

OzReader, Australian Research Council

**Dr S.G. Tims**

Member, Committee, South Pacific Environmental Radioactivity Association

**Mr M. West**

International Member, American Institute of Aeronautics' Electric Propulsion Technical Committee, Virginia, USA

Science Support Team, Phobos Reconnaissance & International Mars Exploration Mission Concept

Study Group, Mars Institute for the Canadian Space Agency, Mountain View, California, USA

Study Group, Mars Institute for the Canadian Space Agency, Mountain View, California, USA

Board of Advisors, Mars Institute, Mountain View, California, USA

### **Professor J.S. Williams**

President, Australian Materials Research Society

Member, Board Australian Materials Research Institute

Member, Board CRC for Functional Communication Services

Member, Board National Youth Science Forum Council

Member, Board Australian Phototonics CRC

Member, Adhering Body Commission, International Union of Materials Research Society

Member, Board Australian Materials Technology Network

Member, Board Materials Australia

Member, WRiota Pty Ltd

Director, Acton Semiconductors Pty Ltd

Member, Sectional Committee, The Australian Academy of Science

Member, Panel, Assessor, Monash University Research Quality Exercise

Member, Panel, Assessor, Application to the New Zealand Centres of Excellence Research Fund by The Victoria University of Wellington

Member, Assessment Committee, Professor in Solid State Physics, Department of Physics and Astronomy, University of Aarhus, Denmark

### **Dr A.N. Wilson**

Program Secretary and Web Editor, Australian Institute of Physics

Local Coordinator, AIP Women in Physics Lecture Tour

## **Appendix – Postdoctoral Fellowship Completions and Destinations**

Dr Ane Aanesland took up a position in September at the Ecole Polytechnique in Paris, France.

Dr Alex Flournoy left in August to take up a lecturing position in the Department of Physics, Colorado School of Mines, Golden, USA.

Dr Orson Sutherland took up a position with the European Space Agency in October.

## **Appendix – University and School Services**

*NB: Membership of regular School Committees is given under Internal Management*

**Dr K. Baldwin**  
Deputy Director

**Dr T.T. Barrows**  
Member, Board, National Institute for the Environment

**Professor M.T. Batchelor**  
Member, Board, Mathematical Sciences Institute  
Coordinator, Mathematical Physics Program, Mathematical Sciences Institute  
Coordinator, ANU Centre for Complex Systems (from May)  
Member, Management Committee, COSNet

**Professor A.P. Byrne**  
Member, ANU Scholarships selection panel  
Member, Faculty Board, RSPSE  
Coordinating Radiation Safety Officer, Faculty of Science  
Member, College of Science Executive  
Member, College of Science HRD committee  
Chair, Local Promotions Committee (Physical Science)  
Chair, College of Science Scholarships Committee

**Mr A.K. Cooper**  
Occupational Health and Safety Officer, Department of Nuclear Physics  
Deputy Chief Fire Warden, Department of Nuclear Physics

**Dr V. Craig**  
Member, School Seminar Series Committee  
Operate the Scanned Probe Microscopy Facility, an open access facility for all users on campus

**Dr M. Dasgupta**  
Member, Staff Selection Panel, Faculty of Science  
Assistant Coordinator, Graduate Student Program for RSPSE (from August)

**Professor R.L. Dewar**  
Coordinator, ANU Centre for Complex Systems (until May)

**Professor G.D. Dracoulis**  
Member, Staff Selection Panels, Department of Nuclear Physics

Member, School Research Directions and Policy Advisory Group  
Member, Strategic Planning Committee, Toroidal Plasma Group

**Professor R.G. Elliman**

Chair, ANU Major Equipment Committee  
Member, ANU Vice Chancellor's Awards Committee  
Member, ANU Physical Sciences Library Committee  
Member, ANU Microscopy Strategic Advisory Group  
Member, John Carver Prize Committee

**Dr L.K. Fifield**

Chair, Radiation Safety Sub-committee, ANU Occupational Health and Safety Policy Committee  
Radiation Officer, Department of Nuclear Physics  
Member, School Reclassification Subcommittee  
Member, Selection Committee for Standard Position in Seismology, RSES

**Professor D.J. Hinde**

Member, Staff Selection Panel, Department of Nuclear Physics

**Mr A. Hyde**

Member, ANU Transport Reference Group  
Member, Consultative Committee, Centre for the Science and Engineering of Materials

**Professor S. Hyde**

Member, Consultative Committee, Centre for the Science and Engineering of Materials

**Professor C. Jagadish**

Chair, School Seminar Series Committee

**Dr T. Kibédi**

Librarian, Department of Nuclear Physics Library

**Professor M. Knackstedt**

Member, School Promotions Committee  
Member, ANU E-research Task Force

**Dr N. Lobanov**

Chief Fire Warden, Department of Nuclear Physics

**Professor J.D. Love**

Member, Staff Committee, Department of Physics  
Member, Department of Engineering Committee, College of Engineering & Computer Science  
Member, College of Science, Postgraduate Coursework Committee



**Dr F.P. Mills**

Member, Faculty Board, Centre for Resource and Environmental Studies,  
Member, ANU Divisional Scholarship Sub-Committee for APA awards

**Dr M.C. Ridgway**

Member, Steering Committee, Centre for the Science and Engineering of Materials  
Member, Board of Studies, Graduate Program in Physics  
Member, Board of Studies, Graduate Program in Environment  
Member, External Grants Advisory Group

**Mr T. Sawkins**

Member, ANU Radiation Safety Sub-committee  
Member, ANU Hazardous Waste Safety Sub-committee  
Coordinating Radiation Safety Officer, RSPSE  
Hazardous Waste Safety Officer, RSPSE

**Dr T. Senden**

Operate the Scanned Probe Microscopy Facility, an open access facility for all users on campus

**Dr J. Sullivan**

Member, School Seminar Committee  
Chair, Selection Committee, Robert and Helen Crompton Travel Scholarship

**Dr H.H. Tan**

Member, Board, Graduate Studies in Engineering and Information Sciences  
Member, School Seminar Series Committee

**Dr S.G. Tims**

Deputy Radiation Safety Officer, Department of Nuclear Physics

**Mr H.J. Wallace**

First Aid Officer, Department of Nuclear Physics

**Dr D.C. Weisser**

Chair, School Reclassification Advisory Committee  
Member, School Staff Selection Panel

**Professor J.S. Williams**

Deputy Convenor, College of Science  
Convenor, Marketing and Outreach, College of Science  
Chair, ANU Board of Science  
Member, ANU Deans & Directors  
Member, University Research Committee  
Member, RSAA Advisory Board  
Member, CECS Advisory Board

Chair, ANU E-Research Taskforce

Member, H-1 National Facility Board

Member, Advisory Board, ARC Centre of Excellence for Ultra-high Bandwidth Devices for Optical Systems

**Dr A.N. Wilson**

Member, School Seminar Series Committee

## Appendix – Visitors

Professor R. Amal	University of New South Wales	EME
Mr D. Andruczyk	University of Sydney	PRL
Mr A. Arad	RMIT University	NLPC
Dr D. Arcon	University of Ljubljana, Slovenia	LPC
Dr J. Arns	University of New South Wales	AM
Professor O. Bang	Technical University of Denmark	LPC
Professor P. Barker	University of Auckland, New Zealand	NP
Professor B. Barrett	University of Arizona, USA	NP
Dr T. Beck	University of Cincinnati, USA	AM
Dr Z. Bonzon	Swinburne University	NLPC
Dr J. Brand	Max Planck Institute, Germany	NLPC
Professor A. Bruce	University of Brighton, UK	NP
Dr P. Burrow	University of Nebraska, USA	AMPL
Professor S. Campbell	University of New South Wales	EME
Dr G. Cavalcanti	Oxford University, UK	TP
Dr A. Ceresole	INFN and University of Turin, Italy	TP
Mr G. Chen	Exxon Mobil	AM
Dr S. Chmel	HISKP Universitat Bonn, Germany	NP
Professor H. Cho	Chungham National University, Korea	AMPL
Professor S.H. Choi	Kyung Hee University, Korea	EME
Dr F. Clementi	University of Rome, Italy	AM
Dr E. Crema	Universidade de Sao Paulo, Brazil	NP
Dr T. J. Davis	CSIRO	NLPC
Dr P. Delaporte	Mediterranean University, France	LPC
Dr Deng	National University of Singapore	AM
Dr C. Di Guilmi	Universita Politecnica dell Marche, Italy	AM
Dr J. Fitzgerald	Research School of Earth Sciences	EME
Dr O. Foda	University of Melbourne	TP
Professor V. Freilikher	Bar-Ilan University, Israel	NLPC
Professor J. Gates	University of Maryland, USA	TP
Dr S. Galiyev	University Auckland, New Zealand	OSG
Mr R. Gati	University of Heidelberg, Germany	NLPC
Professor P. Gomez	Universidade de Sao Paulo, Brazil	NP
Dr D. Grasso	Politecnico di Torino, Italy	TP
Dr G. Gribakin	Queen's University Belfast, Northern Ireland	AMPL
Dr K. Hagino	Tohoku University, Japan	NP
Professor R. Haglund	Vanderbilt University, USA	LPC
A/Professor A. Hamilton	University of New South Wales	EME

Dr N. Halmagyi	University of Chicago, USA	TP
Dr K. Hannabuss	Oxford University, UK	TP
Dr J. Hansen	Roskilde University Denmark	AM
Dr T. Hatae	Japan Atomic Energy Agency, Japan	PRL
Mr K. Hill	RMIT University	NLPC
A/Professor B. James	University of Sydney	PRL
Professor S. John	University of Toronto, Canada	EME
Dr S. Karataglidis	University of Melbourne	NP
Dr G. Karwasz	Pomeranian Pedagogical Academy, Poland	AMPL
Professor C.K. Kim	Yonsei University, South Korea	TP
Professor A. Kluemper	Bergische Universitat, Germany	TP
Professor A. Kuniba	University of Tokyo, Japan	TP
Mr S. Lade	Monash University	NLPC
Professor P. LoNostro	University of Florence, Italy	AM
Professor J. Long	University of China	AM
Professor J. McGuire	Florida Atlantic University, USA	TP
Professor K. Mecke	Universität Erlangen-Nürnberg, Germany	AM
Dr R. Meikigos	Universidade Federal Fluminense, Brazil	NP
Professor Z. Min	University of China	AM
Dr S. Mukhi	Tata Institute of Fundamental Research, India	TP
Dr B.N. Nair	Curtin University of Technology, Perth	EME
Dr S. Nazarenko	Warwick University, UK	PRL
Dr M. Nicodemi	Universita degli Studi Napoli, Italy	AM
Dr H. Park	Appliflex LLC, Nashville, USA	LPC
Dr N. Parker	University of Melbourne	NLPC
Professor I. Pinkevych	University of New South Wales	NLPC
Professor F. Porcelli	Politecnico di Torino, Italy	TP
Mr D. Powell	RMIT University	NLPC
Mr V. B. Rozanov	Lebedev Physical Institute, Russia	LPC
Dr M. Saddatar	Trinity College, Ireland	AM
Dr K. Sakai	University of Tokyo, Japan	TP
Professor L. Santos	University of Stuttgart, Germany	NLPC
Dr M. Sastry	Tata Chemicals Ltd, Mumbai	EME
Dr H. Sati	University of Adelaide & Yale University, USA	TP
Mr B. Scott	Bluescope Steel Limited	PRL
Ms E. Seccombe	ACT Government	AM
Dr M. Shiroishi	Institute for Solid State Physics, Japan	TP
Mr S. Shrestha	Australian Defence Force Academy	NP
Dr S. Skupin	CEA / DAM Ile De France, France	LPC
Professor G. Sierra	Consejo Superior de Investigaciones Cientificas, Spain	TP
Dr N. Smyth	Edinburgh University, Scotland	NLPC

Professor C. Soukoulis	Iowa State University, USA	NLPC
Dr E. Solano	Euratom-Ciemat, Spain	TP/PRL
Dr J.M. Soto-Crespo	Instituto de Optica, Spain	OSG
Professor R. Spear	Department Nuclear Physics	NP
Professor M. Takahashi	University of Tokyo, Japan	TP
Professor N. Takikawa	Tohoku University, Japan	NP
Ms C. Testa	University of Rome, Italy	AM
Professor D. Tomanek	Michigan State University, USA	EME
Dr Z. Tsuboi	Okayama Institute for Quantum Science, Japan	TP
Dr C. Turamella	University of Western Australia	EME
Professor J. Ulanski	Technical University of Lodz, Poland	LPC
Professor A. Veinger	Ioffe Physical-Technical Institute, Russia	LPC
Dr A. Vinu	National Institute for Materials Science, Japan	EME
Professor Li Wang	Beijing University of Technology, China	LPC
Professor D. Weaire	Trinity College, Ireland	AM
Dr K. Wendland	University of Augsburg, Germany	TP
Professor M. Wiescher	University of Notre Dame, USA	NP
Dr A. Wilkins	University of Queensland	AM
Dr S. Wu	University of Colorado, USA	TP
Professor J. H. Yoon	Kangwon National University, Korea	EME
Professor D. Yu	Peking University, China	EME
Professor D. H. Yu	ANSTO	EME
Professor H. Zhao	Griffith University	EME