

## Appendix – Invited Conference Presentations & Lectures

Legend: Presenter of contributed paper is underlined

**SPIE International Symposium on Electronic Imaging**, San Jose, USA, 16 – 20 January

Fu, L. — *Towards Quantum Dot-based Photonic Integrated Circuits*

**16<sup>th</sup> National Congress of Australian Institute of Physics**, Australian National University, Canberra, 30 January – 4 February

Akhmediev, N.N. — *Multiple Dissipative Soliton Interactions in a Passively Mode-locked Fiber Laser*

Das, M.P. — *Where is Dissipation in a Ballistic Quantum Point Contact?*

Dasgupta, M. — *Fusion Mechanisms of Light Weakly Bound Nuclei*

Di Matteo, T. — *Econophysics: from Statistical Physics to Economics*

Dracoulis, G.D. — *Deformed Nuclear Isomers*

Hinde, D.J. — *Reaching the Super-heavies*

Kivshar, Yu.S. — *Nonlinear Light Propagation in Periodic Structures: Experiment vs Theory*

Rode, A.V., Gamaly, E.G., Madsen, N.R., Luther-Davies, B., Hyde, S.T., Christy, A.G., Elliman, R.G. and Giapintzakis, J. — *Magnetic Carbon Nanofoam*

**The 2<sup>nd</sup> International Conference on Advanced Materials and Nanotechnology** (AMN-2), Queenstown, New Zealand, 6 – 11 February

Williams, J.S. — *Novel Silicon-based Materials and Nanotechnology Applications*

Craig, V. — *Boundary Slip in Newtonian Fluids: Implications for Microfluidics*

**2<sup>nd</sup> Italian-Australian Workshop on Future Directions in Spectroscopy and Imaging with Synchrotron Radiation**, Trieste, Italy, 9 – 11 February

Ridgway, M.C. — *Structure in Amorphous Semiconductors Probed with EXAFS*

Sullivan, J.P. — *Using the Time Structure of Synchrotrons to Probe Atomic Physics Processes*

**Conference on Solitons in Bose-Einstein Condensates (SOLIBEC)**, Almagro, Spain, 9 – 12 February

Alexander, T.J. — *Gap Vortices and 3D Localized Structures in Lattices*

**The 2<sup>nd</sup> International Conference on the Frontiers of Plasma Physics and Technology**, Goa, India, 21 – 25 February

Ball, R. — *Shear Flows and Turbulence – A Dynamical Systems Treatment of Plasma Confinement Transitions*

**Korea/Australia Workshop**, YongPyong, Korea, 22 – 24 February

Boswell, R.W. — *High Plasma Density Sputter Deposition of Platinum Clusters for Fuel Cell Electrodes – Next Generation of Plasma Sources for Nano and Bio-active Material Processing*

**National Conference on Nonlinear Systems and Dynamics**, Uttar Pradesh, India, 23 – 26 February

Ball, R. — *Trapped Singularities in a Dynamical Model for Plasma Confinement Transitions*

**2<sup>nd</sup> IAEA Technical Meeting on the Theory of Plasma Instabilities: Transport, Stability and their Interaction**, Trieste, Italy, 2 – 4 March

Ball, R. — *The Case of the Trapped Singularities*

**International Meeting on Non-commutative Geometry, K-Theory and Physics**, Tokyo, Japan, 4 – 7 March

Bouwknegt, P.G. — *D-Branes, Gerbes and (twisted) K-Theory*

**International Workshop on Hydrogen Technologies for a Sustainable Energy Future**, Melbourne, 20 – 23 March

Boswell, R.W. — *High Plasma Density Sputter Deposition of Platinum Clusters for Fuel Cell Electrodes*

**American Physical Society March Meeting**, Los Angeles, USA, 21 – 25 March

Sukhorukov, A.A., Shadrivov, I.V., Zharov, A. and Kivshar, Yu.S. — *Nonlinear Effects in Left-handed Metamaterials and Related Structures*

**International Workshop on DNA Photonics**, Hawaii, USA, 27 – 31 March

Samoc, M. and Samoc, A. — *DNA Photonics at the ANU: Plans and Thoughts*

**Spring Meeting of the Materials Research Society, Symposium V: Rare-Earth Doping for Optoelectronic Applications**, San Francisco, 28 March – 1 April

Forcales, M. — *Pump-probe Experiments in Er-doped Silicon-rich Oxide Slab Waveguides*

Williams, J.S. — *Nanoindentation of Semiconductors*

**The 24<sup>th</sup> Biennial Conference of the Society for Crystallographers in Australia and New Zealand**, Marysville, 29 March – 1 April

Hyde, S.T. — *Knotted Nets and Weavings*

**The 4<sup>th</sup> IMACS International Conference Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory**, Athens, USA, 11 – 14 April

Krolikowski, W. — *Ring Vortex Solitons in Self-focusing Nonlocal Media*

**Geometry and Physics in Honour of Keith Hannabuss' 60<sup>th</sup> Birthday**, University of Adelaide, 11 – 12 April

Bouwknegt, P.G. — *Generalized Geometry, Mirror Symmetry and T-Duality*

**8<sup>th</sup> International Conference on Frontiers of Polymers and Advanced Materials (ICFPAM)**, Cancun, Mexico, 22 – 28 April

Samoc, M., Samoc, A., Luther-Davies, B., Diez, I. and Schulz, B. — *Cubic Nonlinear Optical Properties of  $\pi$ -conjugated Polymers from Reflection-mode Measurements*

**Workshop on Correlated Electron Effects for Anomalous Properties of Elemental Actinides**, Los Alamos, USA, May

Gulacsi, M. — *Mean-field Theory of Phonon Softening*

**International Symposium on Photonics, Biophotonics and Nanophotonics**, Nanjing, China, 14 – 18 May

Samoc, M., Humphrey, M.G. and Cifuentes, M.P. — *Nonlinear Absorption and Nonlinear Refraction in Ruthenium Alkynyl Complexes*

**The National Centre for Nonlinear Studies' 25<sup>th</sup> Annual International Conference – 50 Years of the Fermi – Pasta, Santa Fe, USA, 16 – 20 May**

Kivshar, Yu.S. — *Ulam Problem: Legacy, Impact, and Beyond*

**36<sup>th</sup> Meeting of the Division of Atomic, Molecular and Optical Physics, Lincoln, USA, 17 – 21 May**

Kheifets, A.S. — *Convergent Close-coupling Calculations of Atomic Double Ionization*

**CSIRO Network Topology and Dynamics Workshop, Canberra, 18 May**

Ball, R. — *Singularities and Bifurcations of Dynamical Systems*

**International Workshop on Computational Material Science, Lanzhou, China, 23 – 25 May**

Das, M. — *Mesoscopic Transport and Noise*

**Third SPIE International Symposium on Fluctuations and Noise, Austin, USA 23 – 26 May**

Di Matteo, T. — *Correlation Filtering in Financial Time Series*

**Scientific School on Physics and Applications of Microwaves, Moscow, Russia, 23 – 27 May**

Sukhorukov, A.A., Shadrivov, I.V. and Kivshar, Yu.S. — *Materials with Negative Refractive Index*

**7<sup>th</sup> Mediterranean Workshop and Topical Meeting on Novel Optical Materials and Applications (NOMA'05), Cetraro, Italy, 29 May – 4 June**

Sukhorukov, A.A., Shadrivov, I.V. and Kivshar, Yu.S. — *Complete Bandgaps in One-dimensional Left-handed Periodic Structures*

**16<sup>th</sup> Meeting of the Nuclear Structure and Decay Data Network, McMaster University, Canada, 6 – 10 June**

Kibédi, T. — *BrIcc – Band-Raman Conversion Coefficients*

**Joint Conference on Lasers and Electro-Optics and European Quantum Electronics Conference (CLEO EUROPE/EQEC'05), Munich, Germany, 12 – 17 June**

Ostrovskaya, E.A. — *Bose-Einstein Condensates in Optical Lattices: Band-gap Structure, Solitons, and Vortices*

**International Conference on Finite Fermionic Systems: Nilsson Model 50 Years,**  
Lund, Sweden, 14 – 18 June

Dracoulis, G.D. — *Multi-quasiparticle Intrinsic States in Deformed Yb and Lu Nuclei Near Stability*

**The 17<sup>th</sup> International Conference on Laser Spectroscopy (ICOLS'05),** Aviemore,  
UK, 19 – 24 June

Ostrovskaya, E.A. — *Nonlinear Dynamics of Matter Waves In Optical Lattices*

**International Symposium on Photonic and Electromagnetic Crystal Structures (PECS VI),** Crete, Greece, 19 – 24 June

Kivshar, Yu.S. — *Optically-induced Photonic Lattices: An Analog of Nonlinear Photonic Crystals*

**Asia-Oceania Geosciences Society 2<sup>nd</sup> Annual Meeting,** Singapore, 20 – 24 June

Lewis, B.R. — *Quantum Mechanics and Planetary Atmospheres*

**6<sup>th</sup> International Conference Symmetry in Nonlinear Mathematical Physics,** Kiev,  
Ukraine, 20 – 26 June

Kun, S.Yu. — *Slow Phase Relaxation Can Prevent Meltdown in Quantum Computers*

Biernert, M., Flores, J., Kun, S.Yu. and Seligman, T.H. — *Anomalously Slow Cross Symmetry Phase Relaxation, Thermalized Non-equilibrated Matter and Quantum Computing Beyond the Quantum Chaos Border*

**Nuclear Structure Physics Near the Coulomb Barrier: Into the 21<sup>st</sup> Century,** Yale  
University, USA, 23 – 25 June

Dracoulis, G.D. — *Single-particle and Collective Effects in the Light Pb Isotopes*

Stuchbery, A.E. — *Radioactive Beam g-factor Measurements: The Role of Tandem Laboratories*

**Early Life in the Pilbara Craton and the Link to Mars,** Fremantle, 25 June – 3 July

Carnerup, A., Christy, A., Larsson, A., Welham, N., Garcia Ruiz, J.M., Hyde, S.T. — *Biomorphs vs. Microfossils*

**European Union Workshop on Electron and Positron Induced Chemistry**, Viterbo, Italy, 26 – 30 June

Buckman, S.J. — *The Australian Positron Beamline – A Facility for AMO Physics, Materials Science and Bioscience Studies*

**6<sup>th</sup> Liquid Matter Conference of the European Physical Society**, Utrecht, The Netherlands, 2 – 6 July

Neto, C. — *Boundary Slip in Newtonian Liquids: An Experimental Approach*

**Gordon Research Conference on Nuclear Chemistry**, New London, USA, 26 June – 1 July

Dracoulis, G.D. — *High-K Isomers: Spectroscopy and Nuclear Structure*

Stuchbery, A.E. — *Magnetic Moments as a Probe of Shell Structure in Neutron-rich Nuclei*

**International Conference on Materials for Advanced technologies**, Singapore, 3 – 8 July

Jagadish, C. — *Quantum Dots for Integrated Optoelectronics*

**8<sup>th</sup> International Workshop on the Interrelationship between Plasma Experiments in Laboratory and Space**, Tromsø, Norway, 4 – 8 July

Ball, R. — *Dynamics of Coupled Magnetosphere-ionosphere Energy Subsystems*

Boswell, R.W. — *Possible Application of Current-free Double-layers to Space Plasmas*

**Bragg Gratings, Poling & Photosensitivity / 30th Australian Conference on Optical Fibre Technology (ACOFT/BGPP 2005)**, Sydney, 4 – 8 July

Kivshar, Yu.S., Neshev, D.N., Sukhorukov, A.A. and Krolikowski, W. — *Optically Induced Lattices as Nonlinear Photonic Crystals*

**International Workshop on Photonic Crystals: Fundamentals to Devices**, Sydney, 7 – 8 July

Sukhorukov, A.A., Neshev, D.N., Rosberg, C.R., Hanna, B., Garanovich, I., Krolikowski, W. and Kivshar, Yu.S. — *Spatial Beam Switching in Low-index Nonlinear Photonic Structures*

**Counting Complexity – An International Workshop on Statistical Mechanics and Combinatorics**, Dunk Island, Queensland, 10 – 15 July

Batchelor, M.T. — *The Cool World of Ultracold Bose and Fermi Gases*

**Categories in Algebra, Geometry and Mathematical Physics: Conference in Honour of Ross Street's 60<sup>th</sup> Birthday**, Macquarie University, Sydney, 10 – 17 July

Bouwknegt, P.G. — *D-branes and Generalized Geometry*

**The 1<sup>st</sup> Workshop on Thin Films Applied to Superconducting RF**, Jefferson Lab, USA, 17 – 18 July

Lobanov, N. — *Superconducting Films Deposition at ANU*

**International Workshop on Nanotechnology**, Perth, 17 – 20 July

Jagadish, C. — *Quantum Dots for Optoelectronic Device Applications*

**17<sup>th</sup> International Conference on Phenomena in Ionized Gases**, Eindhoven, The Netherlands, 17 – 22 July

Aanesland A., Charles, C., Boswell, R.W. and Lieberman, M.A. — *Radio Frequency and Direct Current Potential Formation in High Density Plasmas Driven by Bare, Immersed Antennas*

Boswell, R.W. — *Current-free Double-layers in the Laboratory and their Applications to Space Plasmas*

Brault, P., Caillard, A., Thomann, A.L., Charles, C., Boswell, R.W., Durand, J., Roualdes, S., Sauvage, T., Coutanceau, C. and Leger, J.M. — *Fuel Cell Synthesis by High Density Plasma*

Charles, C., Boswell, R.W., Alexander, P., Meige, A., Gesto, F., Blackwell, B.D., West, M., Gowlett, P., Sutherland, O. and Aanesland, A. — *Current-free Double-layers in Expanding Plasmas*

Charles, C. — *Helicon Double Layer Thrusters*

**New Frontiers in Exactly Solved Models**, ANU, 21 – 22 July

Batchelor, M.T. — *Integrable Interacting Fermi Gas*

**1<sup>st</sup> China-Korea Workshop on Low Temperature Plasma Physics and Applications**, Zhang JaiJi, Korea, 26 – 28 July

Boswell, R.W. — *Possible Application of Current-free Double-layers to Space Plasmas*

**14<sup>th</sup> International Symposium on Electron-Molecule Collisions and Swarms,**  
Campinas, Brazil, 27 – 30 July

Buckman, S.J. — *Benchmark in Experimental Studies of Electron(positron) - Molecule(atom) Scattering*

Kheifets, A.S. — *Double Photoionization of H<sub>2</sub> and Ne at Unequal Energy Sharing*

**International Workshop on Supersymmetries and Quantum Symmetries,** Dubna,  
Russia, 27 – 31 July

Bazhanov, V.V. — *Zamolodchikov's Tetrahedron Equation and Hidden Structure of Quantum Groups*

**International Symposium on (e,2e), Double Photoionization and Related Topics,**  
Buenos Aires, Argentina, 28 – 30 July

Lower, J.C.A. — *Ionization of Atoms with Spin-polarised Electrons*

**50<sup>th</sup> Annual Meeting of SPIE-International Society for Optical Engineering,** San  
Diego, USA, 31 July – 4 August

Jagadish, C. — *Quantum Dots and Nanowires for Photonics Applications*

**Soliton Workshop,** Dresden, Germany, August

Krolikowski, W. — *Nonlocal Solitons*

**Workshop for Nonlocal, Collisionless Electron Transport in Plasmas,** Princeton,  
USA, 2 – 4 August

Boswell, R.W., Sutherland, O., Charles, C. and Lieberman, M.A. — *Sub-Bohm Diffusion in a High Beta Helicon Plasma*

**International School of Contemporary Physics-III,** Ulaanbaator, Mongolia, 8 – 15  
August

Kibédi, T. — *Internal Conversion Coefficient: How Good Are They Now?*

**String Theories and Supersymmetric Gauge Theories,** Paris, France, 8 – 19 August

Bazhanov, V.V. — *Eight-vertex Model and Painleve Theory*

**ANU Workshop on Integrability, Spin Systems and Ultracold Quantum Gases**,  
University of Tokyo, Japan, 11 August

Batchelor, M.T. — *Integrable Quantum Fermi Gas*

**Gerbes, Twisted K-Theory and Conformal Field Theory Workshop**, Oberwolfach,  
Germany, 13 – 21 August

Bouwknegt, P.G. — *Generalized Geometry, Mirror Symmetry and T-duality*

**Australian Science Festival**, Canberra, 16 August

Byrne, A.P. — *Future of Nuclear Power in Australia*

**XXIII International Conference of Differential Geometric Methods in Theoretical Physics**, Tianjin, China, 20 – 25 August

Batchelor, M.T. — *Integrable Quantum Gases*

**XIV International Materials Research Congress: Materials World Network: The Next Ten Years**, Cancun, Mexico, 22 – 24 August

Williams, J.S. — *Historical Background – Development of the Materials World Network, Overview on Hawaii*

**Swedish Microelectronics Research Program Conference**, Linköping, Sweden, 23 – 27 August

Jagadish, C. — *Quantum Dots and Nanowires for Optoelectronics Applications*

**XX Congress of the International Union of Crystallography**, Florence, Italy, 23 – 31 August

Hyde, S.T., Ramsden, S. and Robins, V. — *Knotted Nets and Weavings: From 2D Hyperbolic to 3D Euclidean Patterns*

**17<sup>th</sup> International Conference on Ion-Surface Interactions**, Zvenigorod, Russia, 25 – 29 August

Williams, J.S. — *Nanocavities and Nanoparticles Formed in Silicon by Ion Irradiation*

**SPIE International Congress on Optics and Optoelectronics**, Warsaw, Poland, 28 August – 2 September

Kivshar, Yu.S. — *Nonlocal Solitons*

Krolikowski, W. — *Solitons in Nonlocal Nonlinear Media*

Sukhorukov, A.A. and Kivshar, Yu.S. — *Soliton Mobility in Nonlinear Lattices*

**International Conference on Capture Gamma-Ray Spectroscopy (CGS-12)**, Indiana, USA, 4 – 9 September

Dracoulis, G.D. — *Isomers and Aspects of Nuclear Structure*

**14<sup>th</sup> International Conference on Surface Modification of Materials by Ion Beams**, Kusadasi, Turkey, 4 – 9 September

Williams, J.S. — *Ion-beam-induced Formation of Nanocavities and Nanoparticles of Controlled Size in Si and SiO<sub>2</sub>*

**The Seventh International Conference on Correlation Optics**, Chernivtsi, Ukraine, 6 – 9 September

Kivshar, Yu.S. — *Partially Incoherent Optical Vortices*

**European Scientific Foundation Conferences Bose-Einstein Condensation EuroConference on Ultracold Gases and their Applications**, Costa Brava, Spain, 10 – 15 September

Kivshar, Yu.S. — *Matter-wave Gap Solitons and Vortices in Optical Lattices*

**Conference on Laser Ablation (COLA'05)**, Banff, Canada, 11 – 16 September

Rode, A.V., Madsen, N.R., Gamaly, E.G., Christy, A.G. and Luther-Davies, B. — *Cluster Growth in High-power Picosecond MHz-rate Laser Ablation*

**The Fifth Asian-European International Conference on Plasma Surface Engineering (AEPSE 2005)**, Qingdao City, China, 12 – 16 September

Li, W-T., Boswell, R.W. and Bulla, D. — *Surface Oxidation of Al Masks for Deep Dry-etch of Silica Optical*

**International Conference on Advanced Optoelectronics and Lasers (CAOL)**, Yalta, Ukraine, 12 – 17 September

Tan, H.H. — *Quantum Dot Optoelectronic Devices*

**International Conference on Super-Strong Fields in Plasma**, Varenna, Italy, 19 – 24 September

Gamaly, E.G., Uteza, O.P., Rode, A.V., Samoc, M. and Luther-Davies, B. — *Non-equilibrium Transformations of Solids Induced by Femtosecond Laser Pulses*

**Australian Mathematical Society Steering and Council Meetings, 49<sup>th</sup> Annual Conference of the Australian Mathematical Society**, University of Western Australia, Perth, 24 – 29 September

Bouwknegt, P.G. — *Generalized Geometry, Mirror Symmetry and T-Duality*

**12<sup>th</sup> Laser-Aided Plasma Diagnostics Symposium**, Salt Lake City, USA, 25 September – 2 October

Howard, J. — *Coherence Imaging for Time-resolved 2-d Plasma Spectroscopy*

**15<sup>th</sup> International Stellarator Workshop**, Madrid, Spain, 3 – 7 October

Blackwell, B. — *Recent Results from the H-1 Helic*

**2<sup>nd</sup> China Australian Symposium**, Beijing, China, 9 – 13 October

Williams, J.S. — *Nanoscience and Nanotechnology: Materials and Photonics Research at the ANU*

**North Eastern Accelerator Personnel and Heavy Ion Accelerator Technology Conference**, Brookhaven National Laboratory, USA, 16 – 20 October

Weisser, D.C. — *A Novel Rotational Tuner for Multi-stub Resonators*

Weisser, D.C. — *A Gas Cathode for the ANU Version of a SNICSII*

Weisser, D.C. — *Far-field Electrodes for a 3 Frequency Gridded Buncher*

**SPIRAL2 – Workshop on Reactions**, Strasbourg, France, 19 – 21 October

Hinde, D.J. — *Breakup of Weakly Bound Nuclei at Sub-barrier Energies*

**18<sup>th</sup> Annual Meeting of the IEEE Lasers and Electro-Optics Society (LEOS)**, Sydney, 23 – 27 October

Jagadish, C. — *Quantum Dot Lasers and Optoelectronic Device Integration*

Neshev, D.N., Rosberg, C.R., Fischer, C., Sukhorukov, A.A., Desyatnikov, A.S., Ostrovskaya, E.A., Alexander, T.J., Krolikowski, W. and Kivshar, Yu.S. — *Optically-Induced Lattices as Tunable Nonlinear Photonic Crystals*

Sukhorukov, A.A., Shadrivov, I.V. and Kivshar, Yu.S. — *Confinement of Light in Left-handed Periodic Structures*

**International Workshop Energy Relaxation versus Phase Relaxation in Quantum Many Body Systems**, Cuernavaca, Mexico, 24 October – 4 November

Kun, S.Yu. — *Anomalously Slow Phase Relaxation in Quantum Many-body Systems*

**11<sup>th</sup> MicroOptics Conference**, Tokyo, Japan, 30 October – 2 November

Gao, Q. — *Quantum Dot Optoelectronic Devices*

**Materials & Testing Science, Technology and Application Conference**, Fremantle, 30 October – 2 November

Chen, Y. — *One-dimensional Nanomaterials: Synthesis, Characterization and Properties*

Williams, J.S. — *Nanoindentation of Semiconductors*

**Noncommutative Geometry and Physics Workshop 2005**, Sendai University, Japan, 1 – 4 November,

Bouwknegt, P.G. — *Generalized Geometry, Mirror Symmetry and T-duality*

**International Workshop on Non-commutative Geometry and Physics**, Beijing, China, 7 – 10 November

Bouwknegt, P.G. — *Global Aspects of T-duality*

**Antimatter Matters: A Workshop on Positron Applications from Atoms to Materials to Cells**, Australian National University, Canberra, 9 – 11 November

Buckman, S.J. — *Atomic, Molecular & Bioscience Studies at the Australian Positron Beamline*

Sullivan, J.P. — *The Australian Positron Beamline Facility*

McEachran, R.P. — *Positron Excitation Processes – Two Golden Ages*

**14<sup>th</sup> AINSE Conference on Nuclear and Complementary Techniques of Analysis**, Wellington, New Zealand, 20 – 22 November

Elliman, R.G. — *Stress and Stress Relief in Dielectric Thin Films – the Role of Hydrogen*

**Materials Research Society Fall Meeting**, Boston, USA, 28 November – 2 December

Williams, J.S. — *Controlling the Size of Nanocavities and Nanoparticles in Si and SiO<sub>2</sub> Using Ion Irradiation*

**The 2<sup>nd</sup> ARC Centre for Functional Nanomaterials Annual Conference**, Brisbane, 30 November – 3 December

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

Li, C.-P. — *Synthesis of Silicon Oxycarbide Nanowires and Silicon Carbide Nanowires on Carbon Nanotube Template*

**International Conference on Computational Experimental Science and Technology at IIT**, Chennai, India, 1 – 5 December

Das, M. — *Mesosopic Transport and Noise*

**HRIBF Workshop – Near and Sub-barrier Fusion of Radioactive Ions with Medium and Heavy Targets**, Oak Ridge National Laboratory, USA, 2 – 3 December

Hinde, D.J. — *The Role of Nuclear Structure in Sub Barrier Fusion*

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

**6<sup>th</sup> Symposium on Nano-Technology and Plasma Application for Next Generation Processing**, Jeju, Korea, 4 – 7 December

Balcon, N., Aanesland, A. and Boswell, R.W. — *Atmospheric Plasma Processing at the ANU*

**7<sup>th</sup> Australia-Japan Plasma Diagnostics Workshop**, Toki, Japan, 6 – 8 December

Blackwell, B. — *Application of Novel Datamining Techniques to H-1 Mirnov Data*

**SPIE International Symposium on Microelectronics (MEMS)**, Brisbane, 11 – 14 December

Tan, H.H. — *Quantum Dot Optoelectronic Devices Grown by MOCVD*

Aste, T. and Di Matteo, T. — *Materials and Complexity*

Di Matteo, T. and Aste, T. — *Mapping Complex Systems into Hyperbolic Networks*

**4<sup>th</sup> International Conference on Optical Communications and Networks**, Bangkok, Thailand, 14 – 16 December

Akhmediev, N.N. — *(3+1)-Dissipative Solitons: Numerical Studies*

**International Conference Econophysics Colloquium**, The Australian National University, Canberra, 14 – 18 December

Di Matteo, T. and Aste, T. — *Constrained Dynamics of Financial Correlations*

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**Non-refereed conference papers.**

**The 41<sup>st</sup> Applied Mathematics Conference (ANZIAM 2005)**, Hawkes Bay, New Zealand, 30 January – 3 February

Shadrivov, I.V. — *Nonlinear Properties of Left-handed Composites*

**Second International Conference on Advanced Materials and Nanotechnology (AMN-2)**, Queenstown, New Zealand, 6 – 11 February

Shadrivov, I.V., Sukhorukov, A.A. and Kivshar, Yu.S. — *Two-Dimensional Bandgap in One-Dimensional Negative-Index Periodic Structures*

Shadrivov, I.V., Zharova, N.A., Zharov, A.A. and Kivshar, Yu.S. — *Towards Nonlinear Left-handed Metamaterials*

**ICONO/LAT 2005**, St Petersburg, Russia, 11 – 15 May

Sukhorukov, A.A., Neshev, D.N., Krolikowski, W. and Kivshar, Yu.S. — *All-optical Switching in Low-index Nonlinear Bandgap Structures*

Shadrivov, I.V., Sukhorukov, A.A. and Kivshar, Yu.S. — *Two-dimensional Bandgap in One-dimensional Negative-index Periodic Structures*

**7<sup>th</sup> Mediterranean Workshop and Topical Meeting on Novel Optical Materials and Applications (NOMA'05)**, Cetraro, Italy, 29 May – 4 June

Sukhorukov, A.A., Shadrivov, I.V. and Kivshar, Yu.S. — *Complete Bandgaps in One-dimensional Left-handed Periodic Structures*

**The 5<sup>th</sup> International Conference on Photonics, Devices and Systems (Photonics Prague 2005)**, Prague, Czech Republic, 8 – 11 June

Sukhorukov, A.A., Neshev, D.N., Krolikowski, W. and Kivshar, Yu.S. — *Optically-induced Photonic Lattices: An Analog of Nonlinear Photonic Crystals*

**Photonic Crystals: Fundamentals to Devices and 14<sup>th</sup> International Workshop on Optical Waveguide Theory and Numerical Modelling**, Sydney, 7 – 8 July,

Sukhorukov, A.A. — *Spatial Beam Switching in Low-index Nonlinear Photonic Structures*

**12<sup>th</sup> European Conference on Integrated Optics (ECIO'05)**, Grenoble, France, 6 – 8 April

Morrison, S. and Kivshar Yu.S. — *Free Space Beaming of Light from Photonic Crystals*

**International Symposium on Photonic and Electromagnetic Crystal Structures (PECS VI)**, Crete, Greece, 19 – 24 June

Mingaleev, S.F., Miroschnichenko, A.E., Kivshar, Yu.S. and Busch, K. — *Analytical Examination of Fano Resonances in Photonic Crystal Devices*

Shadrivov, I.V., Zharov, A.A., Zharova, N.A. and Kivshar, Yu.S. — *Discrete Effects in Left-handed Metamaterials*

Rosberg, C.R., Sukhorukov, A.A., Neshev, D.N., Krolikowski, W. and Kivshar, Yu.S. — *Tunable Negative Refraction in Photonic Lattices*

**OWTNM 2005 – 3<sup>th</sup> International Workshop on Optical Waveguide Theory and Numerical Modelling**, Grenoble, France, 8 – 9 April

Morrison, S. and Kivshar, Yu.S. — *Modelling the Beaming Effect of Light from Photonic-crystal Waveguides*

**16<sup>th</sup> National Congress of Australian Institute of Physics**, Canberra, 30 January – 4 February

Peterson, D.E., Krolikowski, W., Neshev, D.N., Bang, O. and Wyller, J. — *Dark Soliton Formation and Interaction in Nonlocal Nonlinear Thermal Media*

Shadrivov, I.V., Zharova, N.A., Zharov, A.A. and Kivshar, Yu.S. — *Nonlinear Left-handed Metamaterials*

Sukhorukov, A.A., Ku, T.-S., Shih, M.-F. and Kivshar, Yu.S. — *Coherence Controlled Soliton Interactions*

Miroschnichenko, A.I., Kivshar Yu.S. and Mingaleev, S.V. — *Fano Resonance with Photonic Crystals*

Neshev, D.N., Sukhorukov, A.A., Hanna, B., Krolikowski, W. and Kivshar, Yu.S. — *Control and Steering of Gap Solitons in Optically-induced Lattices*

Lee, R.-K., Ostrovskaya, E.A., Kivshar, Yu.S. and Lai, Y. — *Squeezed Matter-wave Gap Solitons in Optical Lattices*

Desyatnikov, A.S., Neshev, D.N., Kivshar, Yu.S., Sagemerten, N. #, Traeger, D. #, Jaegers, J. # and Denz, C. # — *Two-dimensional Optically Induced Anisotropic Nonlinear Photonic Lattices*

Feise, M.W., Shadrivov, I.V. and Kivshar, Yu.S. — *Bistability and Diode Action in Left-handed Band-gap Structures*

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