

# Annual Report 2004



The Centre for Ultrahigh bandwidth Devices for Optical Systems (CUDOS)  
An Australian Research Council Centre of Excellence

# Awards and Professional Service

Professional service – refereeing journal submissions, editorial activities, and involvement in conference organisation – is a significant measure of recognition by scientific peers. Awards, of course, provide far more public recognition. CUDOS Chief Investigators continue to rank highly on both measures, as the records of their professional service and awards during 2004 demonstrate.

During 2004 **Professor Ben Eggleton** was the Program Chair for the Australian Conference on Fibre Technology held in Canberra. He served on the technical program committees for the Conference on Lasers and Electro-Optics (CLEO) in San Francisco, the Annual Meeting for the Lasers and Electro-Optics Society (LEOS) in Puerto and the Nonlinear Guided Waves meeting in Toronto and was a technical group chair for the Photonic Devices committee for the Frontiers in Optics annual meeting for the Optical Society of America (OSA) held in Rochester. He served as an Associate Editor for the IEEE journal, Photonic Technologies Letters and was on the editorial advisory board for the journal Optics Communications. He served as the chair for the Adolph Lomb medal committee, awarded by the Optical Society of America for scientists under the age of 35.

He is an assessor for the Australian Research Council, The Ireland Science Foundation, Singapore Research Foundation and the Canadian Research Foundation.

Prof Eggleton was reviewer for numerous journals including Optics Letters, Optics Express, Nature, Science, Applied Optics and Optical Communications.

Prof Eggleton was the recipient of the Malcolm McIntosh Prize for Physical Scientist of the Year.



▲ **Simon Poole, Ben Eggleton, Martijn de Sterke and Chris Walsh at the Prime Minister's Prizes for Science presentation night at Parliament House.**



▲ **Yuri Kivshar during his visit to South America with one of his hosts, Prof. Mario Molina from University de Chile.**

During 2004 **Professor Yuri Kivshar** was presented with an Optical Society of America Fellow Travel Award to visit South America and promote OSA. In October 2004, he visited Santiago to continue his collaborations with scientists from Chile. His visit was highlighted by local press in Santiago.

Professor Kivshar was a member of the International Advisory Committee for PHOTON-04 (Glasgow, 2004) and for the International Workshop on Nonlinear Optics of Liquid and Photorefractive Crystals NOLPC 2004 (Crimea, Ukraine). He was an Associate Editor for Physics Review E until March 2004 and continues as a Board member for "Optics Communications" and as an Advisory Board member for "Chaos". Prof Kivshar is a reviewer for Science, Physical Review Letters, Physical Review E, Physical Review B, Optics Communications, Optics Letters, Optics Express and Physics Letters A. He is an assessor for the Australian Research Council (Reader), Israeli Research Foundation, National Science Foundation (NSF), Singapore Research Foundation and for the Dutch Technology Foundation STW.

**Professor Martijn de Sterke** is Associate Editor of Optics Express. He refereed for Optics Communication, Phys.



▲ **Ross McPhedran receives the AOS Medal from society president Barry Sanders.**

Rev. B, Phys Rev E, Phys Rev. Lett., J. Lightwave Technology, Photonic Technol. Lett., Appl. Phys. Lett., J. Applied Phys, and J. Opt. Soc. Am B. He is a member of the Program Committee for the 2005 MicroOptics Conference (MOC'05), member of the Program Committee of the 2004 conference of the Australian Optical Society, and was a subcommittee member for the 2004 Quantum Electronics and Lasers Conference. In 2004 he also took on the position of Associate Dean for Research of the Faculty of Science at the University of Sydney.

**Professor Ross McPhedran** is currently a member of the Editorial Advisory Board of Proceedings of the Royal Society A and Waves in Random Media. During 2004 he became a Fellow of Institute of Physics (U.K.). He was awarded the 2004 Medal of the Australian Optical Society for distinguished service to optics in Australia. He serves as a reviewer for the Australian Research Council, Optics Express, Optics Letters, Physical Review E, Journal of Physics C, Physical Review Letters, the Journal of the Optical Society of America and Optics Communications. During 2004, he presented an invited Tutorial on microstructured optical fibres at the European Conference on Optical Communication, and an invited paper at the Annual Meeting of the Optical Society of America. He also provided the Foreword for the book "Fundamentals of Photonic Crystal Fibres" (Imperial College Press, January 2005).

**Dr Justin Blows** is a reviewer for Optics Letters, Electronics Letters, Journal of the Optical Society of America B, Journal of Lightwave Technology, Optics Communications, IEEE Photonics technology letters and Optics Express.

**Professor Barry Luther-Davies** acts as a reviewer for Thin Solid Films, Optical Society of America (JOSA, Optics Letters, Optics Express), Journal of Physics, Optics Communications and Photonics Technology Letters.

**Professor Wieslaw Krolikowski** was promoted from Senior Fellow to full Professor in the Research School of Physical Sciences, Australian National University.

**Professor Min Gu** was made a Fellow of Optical Society of America in December. He continues to serve as President of the International Society of Optics within Life Sciences. During 2004 he became Topical Editor of Applied Optics: Optical Technology and Biomedical Optics (OSA) and continues to be a member of the Editorial/Advisory Board of the International Journal of Scanning Microscopies, Optics Communications, Journal of Microscopy, Chinese Optics Letters and Optik. Professor Gu was a reviewer for Optics Letters, Applied Optics, Journal of the Optical Society of America A, Optics Communications, Journal of Biomedical Optics, Journal of Microscopy, Review of Scientific Instruments, Optics Express, Applied Physics Letters, Advanced Functional Materials, Advanced Materials, Physics in Medicine and Biology, Journal of Biophysics, Optics and Lasers in Engineering and IEEE Photonics Technology Letters.

Prof Gu was a chair of the Organising Committee and the International Steering Committee of the 8th International Conference on Optics Within Life Sciences (Melbourne). He was a member of the Program Committee of the following meetings: "Multiphoton Microscopy in the Biomedical



◀ **Professor Jim Piper, winner of the Carnegie Centenary Professorship at Herriot-Watt University.**

Sciences", PhotonicsWest, San Jose; the International Congress on Applications of Lasers and Electro-Optics (ICALEO 2004), Melbourne; the International Conference on Confocal Microscopy, Philadelphia; the program on "Optical Trapping and Optical Micro-Manipulation" at the 49th Annual Meeting of the International Society for Optical Engineering, Denver; "Optics in Health Care and Biomedical Optics: Diagnostics and Treatment", in Photonics Asia, Beijing; "Conference on Biomedical Applications of Micro- and Nanoengineering II", at the International Symposium on Smart Materials, Nano-, and Micro-Smart Systems, Sydney. He was Co-Chair of the Technical Program Sub-Committee, The Second Asian and Pacific Rim Symposium on Biophotonics (APBP 2004), Taipei.

**Associate Professor Judith Dawes** served as a reviewer for Optics Express, Optics Communications, Optics Letters, Journal of Luminescence, Journal of Crystal Growth and Applied Optics.

**Professor Lindsay Botten** was elected a Fellow of the Optical Society of America in 2004. He is a reviewer for Physical Review Letters, Physical Review B, Physical Review E, Journal of the Optical Society of America, Optics Express, Optics Letters, Optics Communications and Journal of Lightwave Technology. He also serves as the University Services Director of ac3 (Australian Centre for Advanced Computing and Communications), as a Director of the APAC (Australian Partnership for Advanced Computing) and was a member of APAC's Evaluation Committee for the new national supercomputing facility.

During 2004 **Professor Jim Piper** was named as the winner of the Carnegie Centenary Professorship at Herriot-Watt University. Professor Piper plans to take up the Professorship, which includes an award of £40,000 and a three to six month tenure at the University, in mid 2006. While in Scotland, Jim will also deliver the plenary Carnegie Lecture, which is part of the Carnegie Professorship's aim of benefiting not only the host university but the Scottish university community as a whole.

**Dr Michael Withford** is a reviewer for Optics Express, Optics Communications, Applied Optics and Photonics Technology Letters.