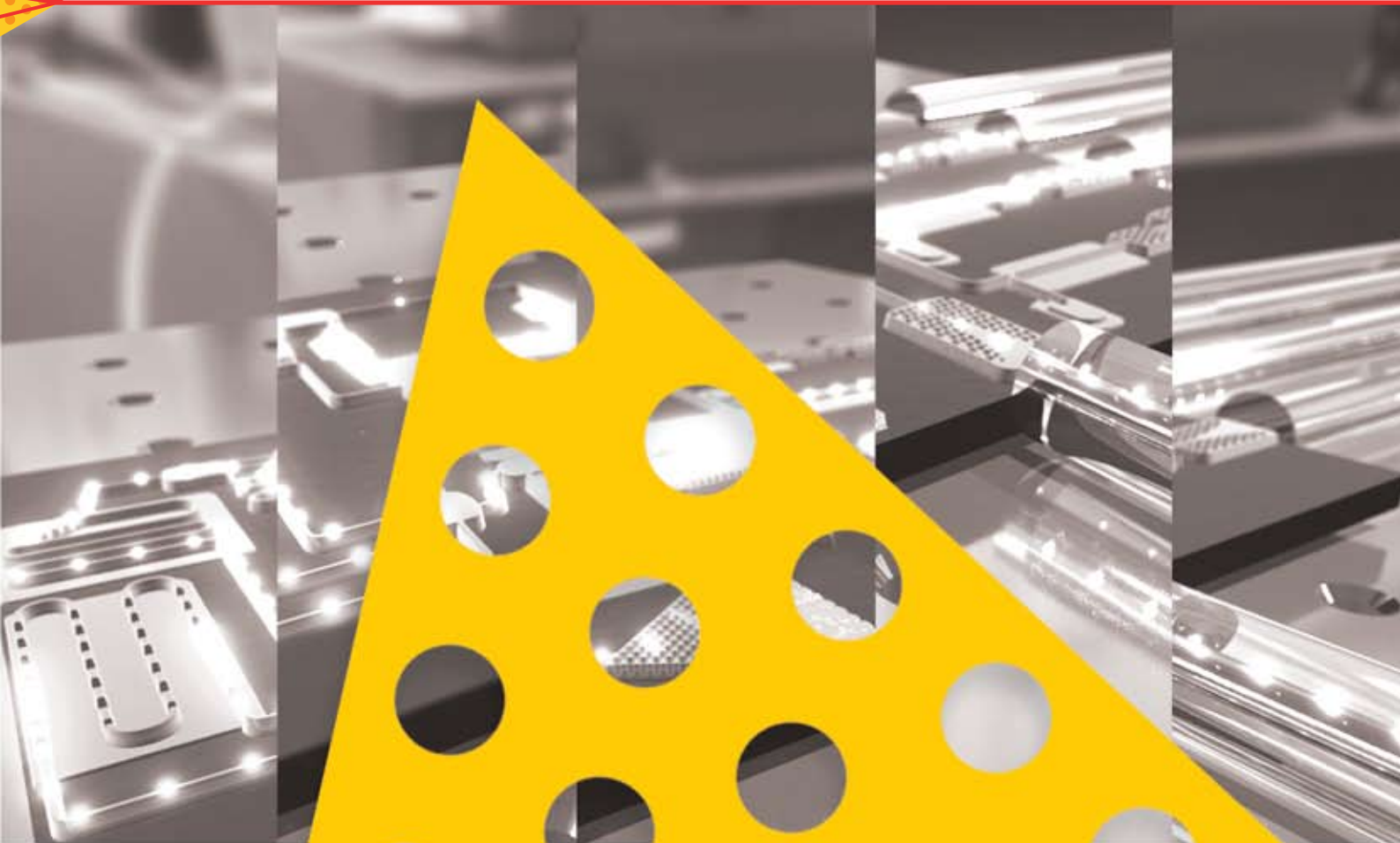




CUDOS

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



Annual Report 2007

1. Asatryan AA, Boten LC, Byrne MA, McPhedran RC, de Sterke CM, Possible evidence for a mobility edge for photons in two dimensions, CLEO/QELS, Baltimore Maryland, 6-11 May 2007, paper QTuG4
2. Asatryan AA, Botten LC, Byrne MA, Freilikher VD, Gredeskul SA, McPhedran RC, Shadrivov IA, Kivshar YS, Anderson Localisation in the presence of metamaterials, OSA META 2007 (Photonic Metamaterials: from random to periodic), Jackson Hole Wyoming, June 2007
3. Asatryan AA, Botten LC, Byrne MA, McPhedran RC, de Sterke CM, Possible evidence for a mobility edge for photons in two dimensions, CLEO/QELS, Baltimore Maryland, May 2007
4. Åslund ML, Jovanovic N, Groothoff N, Canning J, Marshall GD, Jackson SD, Fuerbach A, Withford MJ, Photodarkening study of gratings written into rare-earth doped optical fibres using a femtosecond laser, SPIE Micoelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007
5. Austin DR, Bolger JA, de Sterke CM, Yeom D-I, Brown TG, Eggleton BJ, Narrow-band spectral enhancement of a self-phase modulated pulse, CLEO/QELS, Baltimore Maryland, 6-11 May 2007, paper JTuB4
6. Bennet FH, Rosberg CR, Neshev DN, Krolikowski W, Kivshar YS, Rasmussen PD, Bang O, Bjarklev A, Temporal nonlinear beam dynamics in infiltrated photonic-crystal fibers, SPIE Micoelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007, 680111
7. Bordas F, Seassal C, Dupuy E, Regreny P, Gendry M, Steel MJ, Rahmani A, Room-Temperature InAs/InP Quantum-Dot Photonic Crystal Microlasers Using Cavity-Confined Slow Light, CLEO/QELS, Baltimore Maryland, 6-11 May 2007, paper CThB4
8. Bordas F, Ferrier L, Steel MJ, Seassal C, Drouard E, Letartre X, Rahmani A, Cavity-confined Slow Light in Photonic Crystal Slab, Photonic and Electromagnetic crystal structures, PECS VII, Monterey California, 8-11 April 2007
9. Botten LC, Dossou KB, Asatryan AA, McPhedran RC, de Sterke CM, Exact modelling of generalised defect modes in photonic crystals, CLEO/QELS, Baltimore Maryland, May 2007
10. Botten LC, Dossou KB, Asatryan AA, Wilcox S, McPhedran RC, de Sterke CM, Exact modeling of generalized defect modes in photonic crystals, CLEO/QELS, Baltimore Maryland, 6-11 May 2007, paper JWA8
11. Botten LC, Dossou KB, Asatryan AA, Wilcox S, McPhedran RC, de Sterke CM, Exact modelling of generalised defect modes in photonic crystals, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
12. Buccoliero D, Desyatnikov AS, Krolikowski W, Kivshar YS, Rotating multipole vortex solitons in nonlocal media, SPIE 6725, 2007, 672507
13. Choi D-Y, Madden S, Rode A, Wang R, Luther-Davies B, Fabrication process development for As_2S_3 plana waveguides using standard semiconductor processing, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
14. Choi D-Y, Madden S, Rode A, Wang R, Luther-Davies B, Baker N, Eggleton B, High quality comb filters in chalcogenide rib waveguides, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
15. Choi D-Y, Madden S, Rode A, Wang R, Luther-Davies B, Baker NJ, Eggleton BJ, Novel Shadow Mask Structure for Sampled Bragg Gratings in Chalcogenide (As_2S_3) Planar Waveguides, CLEO/QELS/PhAST, Baltimore Maryland, 6-11 May 2007, CTHN4
16. Choi D-Y, Madden S, Rode AV, Wang R, Bulla D, Luther-Davies B, Fabrication of As_2S_3 Planar Waveguides with Very Low Propagation Loss, IEEE/LEOS Annual Meeting, Lake Buena Vista Florida, 21-25 October 2007
17. Dossou KB, Botten LC, McPhedran RC, Asatryan AA, de Sterke CM, Gap-Edge Asymptotics of Defect Modes in 2-D Photonic Crystals, Frontiers in Optics, San Jose, California, 16-20 September 2007, paper FTuK3
18. Dossou KB, McPhedran RC, Botten LC, Asatryan AA, de Sterke CM, Gap-edge Asymptotics of Defect Modes in 2D Photonic Crystals, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
19. Eggleton B, Ta'eed V, Baker N, Fu L, Finsterbusch K, Lamont M, Moss D, Nguyen H, Ultrafast all-optical chalcogenide glass photonic circuits, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
20. Fischer R, Neshev DN, Saltiel SM, Sukhorukov AA, Krolikowski W, Arie A, Kivshar YS, Pulse monitoring based on transverse SHG in periodic and disordered media, SPIE Micoelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007, 680110
21. Fischer R, Saltiel SM, Neshev DN, Krolikowski W, Dreischuh A, Kivshar YS, Frequency doubling in SBN crystals with random ferroelectric domains in the thermal focusing regime, SPIE 6604, 2007, 66041F
22. Fuerbach A, Isemann A, Mueller T, Fernandez A, Graf R, The "missing link": Chirped-pulse oscillators for rapid and high precision microfabrication, Conference on Laser Processes and Components, Shanghai China, 2007
23. Fuerbach A, Jovanovic N, Marshall GD, Jackson S, Withford MJ, High power fibre lasers based on point-by-point inscribed fibre-Bragg gratings, CLEO-Europe, Munich Germany, 17-22 June 2007, paper CJ6
24. Fuerbach A, Marshall GD, Jovanovic N, Ams M, Withford MJ, Femtosecond Laser Fabrication Techniques for Nanophotonics Devices, European Topical Meeting on Nanophotonics and Metamaterials, Seefeld Austria, 2007
25. Garanovich IL, Sukhorukov AA, Kivshar YS, Szameit A, Dreisow F, Pertsch T, Nolte S, Tuennermann A, Nonlinear diffusion and self-trapping of light in diffraction-managed photonic lattices, OSA Nonlinear Photonics Topical Meeting and Tabletop Exhibit, 2007, JME4
26. Groothoff N, Canning J, Jovanovic N, Marshall GD, Withford MJ, Gratings in Large Diameter Air-clad Optical Fibre using femtosecond laser, BGPP, Quebec City Canada, 2007
27. Groothoff N, Canning J, Jovanovic N, Marshall GD, Withford MJ, Bragg Gratings in Large Diameter Air-Clad Optical Fibre Using a Femtosecond Laser, COIN/ACOFT, Melbourne Australia, 24-27 June 2007, paper MoB2-3
28. Ha S, Sukhorukov AA, Dossou KB, Botten LC, Kivshar YS, Dispersionless tunnelling of slow light in antisymmetric photonic crystal couplers, CLEO-Pacific Rim, Seoul Korea, August 2007
29. Haynes D, Dawes JM, Haynes R, Withford M, Fibre losses in astronomical instrumentation due to end-face surface roughness, Astronomical Society of Australia Annual Conference, Sydney Australia, July 2007
30. Iyer R, Wan J, Dignam MM, de Sterke CM, Aitchison JS, Exact dynamic localization in curved AlGaAs optical waveguide arrays, CLEO/QELS, Baltimore Maryland, 6-11 May 2007, paper QTuA6
31. Jia B, Li J, Gu M, Near-field mapping of three-dimensional woodpile photonic crystals by using supercontinuum generation, CLEO-Europe, Munich Germany, 17-22 June 2007
32. Jia B, Wu S, Li J, Gu M, Formation of high index three-dimensional inverse woodpile photonic crystals by single infiltration, CLEO-Europe, Munich Germany, 17-22 June 2007
33. Johnston BF, Dekker P, Withford MJ, Saltiel SM, Kivshar YS, Energy exchange between two orthogonally polarized waves by

- cascading of two quasi-phase matched quadratic processes, SPIE Microelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007
34. Johnston BF, Saltiel S, Dekker P, Withford MJ, Kivshar YS, Simultaneous SHG of orthogonally polarized fundamentals in single QPM crystals, SPIE 6455, 2007, paper 6455-26
 35. Jovanovic N, Åslund M, Fuerbach A, Jackson SD, Marshall GD, Withford MJ, 100 W CW Yb³⁺-doped silica fiber laser utilizing a active-core inscribed point-by-point Bragg grating, BGPP, Quebec City Canada, 2007
 36. Jovanovic N, Åslund M, Fuerbach A, Jackson SD, Marshall GD, Withford MJ, Narrow (100pm) Linewidth Fibre Laser Operating in Excess of 50 W, CLEO-Europe, Munich Germany, 17-22 June 2007 (post-deadline paper)
 37. Jovanovic N, Fuerbach A, Town GE, Marshall GD, Withford MJ, Bennetts S, Lancaster DG, Linearly polarised, single-mode Ytterbium doped fibre laser utilizing point-by-point inscribed intra-core fibre Bragg gratings, SPIE Microelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007
 38. Kan D, Marshall GD, Asatryan AA, Botten LC, Withford MJ, Transverse coupling of light into the core of a photonic crystal fiber, COIN/ACOFT, Melbourne Australia, 24-27 June 2007, paper P4
 39. Kan DJ, Marshall GD, Botten LC, Asatryan AA, Withford MJ, Transverse coupling of light into the core of a photonic crystal fibre, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
 40. Kibler B, Fischer R, Lacourt PA, Courvoisier F, Ferrière F, Billet C, Neshev D, Dudley JM, Control and compression of extreme spectrally-broadened pulses in highly nonlinear fiber, SPIE 6453, 2007, 64530W
 41. Kuhlmeiy BT, Bolger J, Wu D, Giessen H, Eggleton BJ, Selectively filled hybrid ARROW fibers, SPIE Microelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007
 42. Lamont MRE, Moss DJ, Roelens M, Ta'eed VG, Eggleton BJ, Madden S, Luther-Davies B, Error-Free Wavelength Conversion Via Cross Phase Modulation in As₂S₃ chalcogenide Glass Rib Waveguides, IEEE/LEOS Annual Meeting, Lake Buena Vista Florida, 21-25 October 2007
 43. Lee MW, Grillet C, Smith C, Tomljenovic-Hanic s, Moss D, Eggleton B, Freeman d, Luther-Davies B, Madden S, Rode A, Ruan Y, Lee Y-H, Photosensitive post tuning of chalcogenide photonic crystal waveguides, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
 44. Li J, Jia B, Bullen C, Serbin J, Zhou G, Gu M, Spectral redistribution in spontaneous emission from quantum dot infiltrated three-dimensional photonic crystals, CLEO-Europe, Munich Germany, 17-22 June 2007
 45. Little D, Dekker P, Rahmani A, Dawes J, Marshall G, Withford M, Characterisation of fs-laser written refractive index changes using Near-field Scanning Optical Microscopy, SPIE Microelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007
 46. Luther-Davies B, Zha C, Prasad A, Smith A, Optical Properties and Structural Transitions in Ge-As-Se Glasses, CLEO/QELS/PhAST, Baltimore Maryland, 6-11 May 2007, CMGG7
 47. Marshall GD, Dekker P, Ams M, Piper JA, Withford MJ, Monolithic Waveguide-Laser Created Using the Direct Write Technique, BGPP, Quebec City Canada, 2007 (post-deadline paper)
 48. Marshall GD, Kan D, Asatryan AA, Botten LC, Withford MJ, Side Coupling Light into the Core of Photonic Crystal Fiber, CLEO/QELS, Baltimore Maryland, 6-11 May 2007, paper CWO2
 49. Marshall GD, Withford MJ, Annealing properties of Femtosecond Laser Inscribed Point-by-Point Fiber Bragg Gratings, BGPP, Quebec City Canada, 2007, paper JWA30
 50. Marshall GD, Withford MJ, Direct written Bragg grating structures in optical waveguides, Photonics West LAMOM, San Jose California, January 2007, paper 6458A-22
 51. Minovich AE, Bezuharov KS, Neshev DN, Dreischuh AA, Krolikowski WZ, Kivshar YS, Experimental reconstruction of a nonlocal nonlinear response function of a thermal medium, SPIE 6604, 2007, 66041U
 52. Neshev DN, Sukhorukov AA, Mitchell A, Rosberg CR, Fischer R, Dreischuh A, Krolikowski WZ, Kivshar YS, Optical lattices as nonlinear photonic crystals, SPIE 6604, 2007, 66041B
 53. Prasad A, Zha C, Smith A, Madden S, Bulla D, Rode A, Wang R, Luther-Davies B, Characteristics of Ge-As-Se chalcogenide glasses and films, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
 54. Rahmani A, Bordas F, Seassal C, Steel MJ, Slow-Light Trapping in a Photonic Crystal Slab!, CLEO/QELS, Baltimore Maryland, 6-11 May 2007, paper JWA16
 55. Rosberg CR, Bennet FH, Neshev DN, Rasmussen PD, Bang O, Krolikowski WZ, Bjarklev A, Kivshar YS, Tunable nonlinear beam defocusing in infiltrated photonic crystal fibers, Nonlinear Optics: Materials, Fundamentals and Applications, Kona Hawaii USA, 30 July-3 August 2007, ThC2
 56. Rosberg CR, Bennet FH, Neshev DN, Sukhorukov AA, Krolikowski WZ, Kivshar YS, Rasmussen PD, Bang O, Bjarklev A, Tunable beam diffraction in infiltrated microstructured fibers, Frontiers in Optics, San Jose California, 16-20 September 2007
 57. Saltiel SM, Neshev DN, Krolikowski WZ, Fischer R, Arie A, Kivshar YS, Generation of conical second harmonic waves by nonlinear Bragg diffraction in two-dimensional nonlinear photonic structures, SPIE Microelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007, 680113
 58. Stewart L, Marshall GD, Dawes JM, Rahmani A, Withford MJ, Photonic Bandgap Guiding in an Opal Clad Fibre, CLEO-Europe, Munich Germany, 17-22 June 2007, paper CK15
 59. Stewart L, Withford MJ, Dawes J, Marshall GD, Rahmani A, Self-assembly around curved surfaces, SPIE Microelectronics, MEMS and Nanotechnology, Canberra Australia, December 2007
 60. Tomljenovic-Hanic S, Steel MJ, de Sterke CM, Moss DJ, Design of high-Q cavities in photosensitive material-based photonic crystal heterostructures, PIERS, Beijing China, 26-30 March 2007, pp 1313-1315
 61. Vahn G, White TP, Steel MJ, de Sterke CM, Dossou KB, Botten LC, Efficient Modeling of 2D Multi-Segment Photonic Crystal Devices, COIN/ACOFT, Melbourne Australia, 24-27 June 2007
 62. Ventura MJ, Gu M, Modified spontaneous emission using higherorder pseudogaps in 3-D polymer photonic crystals at telecommunication wavelengths, Frontiers in Optics, San Jose California, 18-19 September 2007
 63. Wang R, Zhang X, Cox F, Kuhlmeiy B, Large M, Silver coatings in selected holes of microstructured polymer optical fibres, COIN/ACOFT, Melbourne Australia, 24-27 June 2007, paper P21
 64. Yeom D-I, Bolger JA, Marshall GD, Austin DR, Kuhlmeiy BT, de Sterke CM, Tunable spectral enhancement in supercontinuum with a long-period fiber grating, CLEO/QELS/PhAST, Baltimore Maryland, 6-11 May 2007, paper CThH3
 65. Zha C, Luther-Davies B, Wang R, Madden S, High Optical nonlinear Ag-doped As₂Se₃ glasses, COIN/ACOFT, Melbourne Australia, 24-27 June 2007