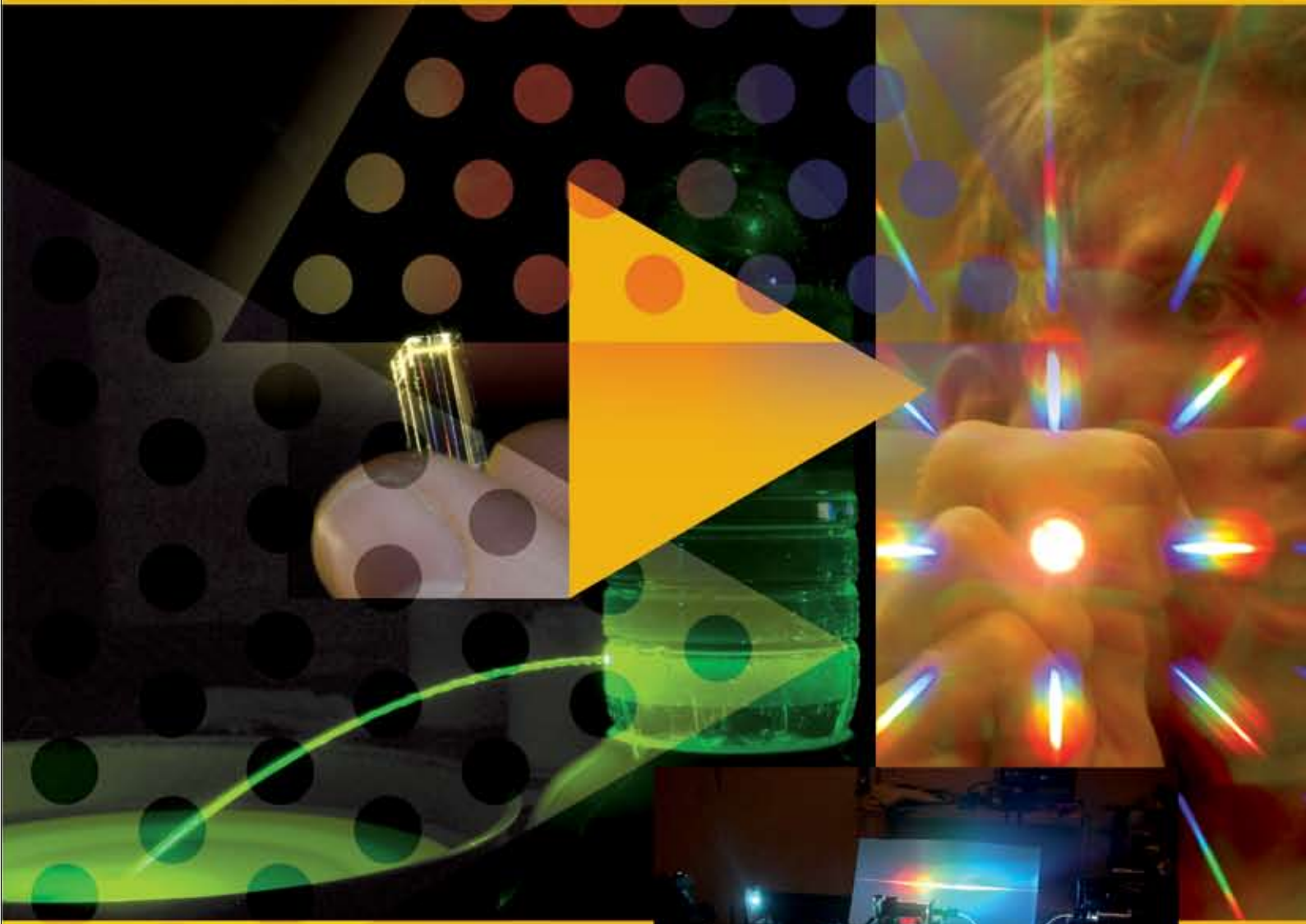




# CUDOS

The Centre for Ultrahigh bandwidth Devices for Optical Systems (CUDOS)



A N N U A L R E P O R T

2006

# 2006 CUDOS STUDENTS

Neil Baker and Mike Lee, Vahid Ta'eed from Sydney used chalcogenide glass samples fabricated at the ANU by Duk Choi, Barry Luther-Davies, and Steve Madden for their experiments.

Sam Campbell (Sydney) is co-supervised by Ross McPhedran and Martijn de Sterke from Sydney, and by Lindsay Botten at UTS.

	University	Type	Supervisors	Thesis Title
<b>Continuing Postgraduates</b>				
Michael Byrne	UTS	PhD	Botten	Modal formulations for photonic crystal devices
Michael Ventura	Swinb	PhD	Gu	Fabrication and characterization of photonic crystal devices
Jiafang Li	Swinb	PhD	Gu, Zhou	Radiation dynamics of three-dimensional photonic crystals fabricated by two-photon polymerization
Steven Morrison	ANU	PhD	Kivshar	Electromagnetic waves and scattering in photonic crystals
Aaron Matthews	ANU	PhD	Kivshar	Photonic Crystals and Optical devices
Christian Rosberg	ANU	PhD	Neshev, Kivshar, Krolkowski	Bragg scattering in nonlinear photonic lattices
Ivan Garanovich	ANU	PhD	Sukhorukov, Kivshar, Neshev	All-optical switching in nonlinear modulated lattices
Vahid Ta'eed	Sydney	PhD	Eggleton	Bragg gratings in highly nonlinear planar waveguides
Neil Baker	Sydney	PhD	Eggleton, de Sterke	Slow light in chalcogenide grating structures
Sam Campbell	Sydney	PhD	McPhedran, Botten, de Sterke	Radiation losses in photonic crystals
Paul Steinvurzel	Sydney	PhD	de Sterke, Steel, Eggleton	ARROW photonic crystal fibres
Michael Lamont	Sydney	PhD	Moss, Eggleton, de Sterke	Integrated all-optical devices in chalcogenide waveguides
Hong Nguyen	Sydney	PhD	Eggleton	Tapered photonic crystal fibres: fundamental and applications
Joe Mok	Sydney	PhD	Eggleton, de Sterke	Nonlinear pulse propagation in Bragg gratings
Cameron Smith	Sydney	PhD	Eggleton, Grillet	Coupling into photonic crystal waveguides and cavities using tapered nanowires
Amrita Prasad	ANU	PhD	Luther-Davies	Ge-As-Se glasses for all optical processing
Darren Freeman	ANU	PhD	Luther-Davies	Chalcogenide photonic crystals produced using a focused ion beam mill
Martin Ams	Macq	PhD	Withford, Dawes, Piper	Laser-written waveguide and amplifiers
Ben Johnston	Macq	PhD	Withford, Dekker	Periodically poled devices
Doug Little	Macq	PhD	Withford, Marshall	Near-field optical microscopy
Luke Stewart	Macq	PhD	Withford, Marshall, Dawes	Self-assembly of photonic crystal structures
<b>Postgraduates started in 2006</b>				
Rober Fischer	ANU	PhD	Neshev	Nonlinear Wave transport in periodic structures
Sangwoo Ha	ANU	PhD	Sukhorukov	Slow light in periodic photonic structures
Alex Minovich	ANU	PhD	Neshev	Interaction of singular optical beams with resonant nonlinear media
Daniel Buccoliero	ANU	PhD	Desyatnykov	Nonlocal Solitons
Nem Jovanovich	Macq	PhD	Withford, Fuerbach	Development of advanced ultrafast lasers for direct writing of photonic devices
Dionne Hayes	Macq	MSc	Withford, Dawes, Bland-Hawthorn (AAO)	Optical fibre bundels in astronomy
Dane Austin	Sydney	MSc	de Sterke, Eggleton	Sculpting supercontinuum generation
<b>Postgraduates finished in 2006</b>				
Sam Myers	Macq	MSc	Dawes, McPhedran, Eggleton	Radiation dynamics in tapered photonic crystal fibres
Peter Domachuk	Sydney	PhD	Eggleton	Microfluidic optical devices
Ross McKerracher	Sydney	PhD	de Sterke	Frequency conversion using four-wave mixing
Andrew Lee	Macq	PhD	Withford, Dawes	laser fabrication of microstructures
<b>Honours Students</b>				
Dougal Kan	UTS	science	Botten	Modelling of transverse scattering in microstructured optical fibres using the multipole method
Jamie Vahn	Sydney	science	de Sterke, Steel	All-optical switching in a chalcogenide photonic crystal device
Therese Au	Sydney	science	Eggleton, de Sterke	Low-threshold optical switching in phase-shifted fibre Bragg gratings
Michael Lee	Sydney	science	Grillet, Eggleton	Photosensitive post-tuning of chalcogenide photonic crystal waveguides
Jamie Walker	Sydney	engineering	de Sterke	Slow light coupler