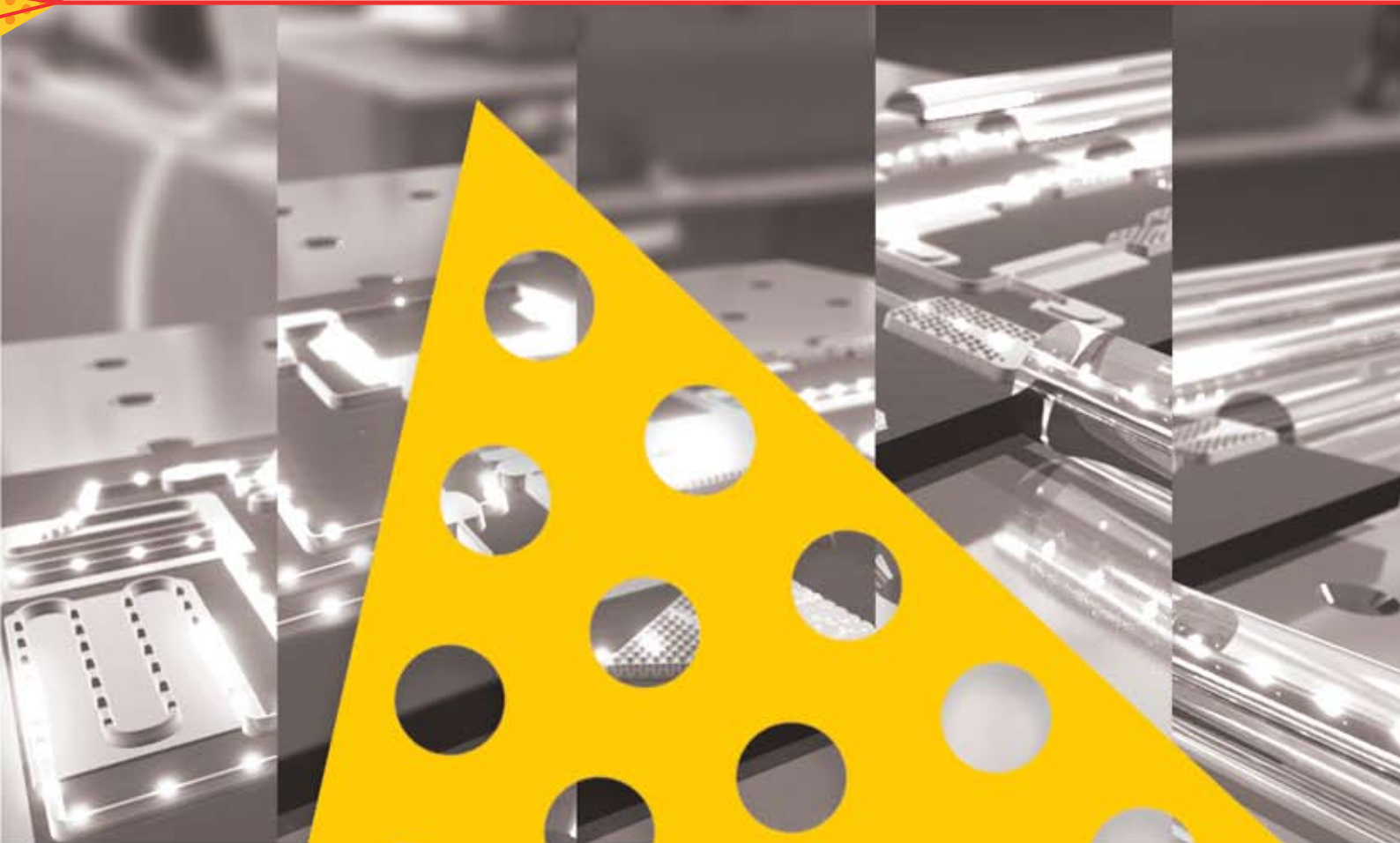




# CUDOS

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



## Annual Report 2007

# List of Students

## CONTINUING/COMPLETED POSTGRAD STUDENTS

Name		PhD/Masters	Supervisor	Title
Neil Baker	UoS	PhD	Eggleton, de Sterke	Slow light in chalcogenide grating structures
Sam Campbell	UoS	PhD	McPhedran, Botten, de Sterke	Radiation losses in photonic crystals
Michael Lamont	UoS	PhD	Eggleton, de Sterke	Integrated all-optical devices in chalcogenide waveguides
Hong Nguyen	UoS	PhD	Eggleton, de Sterke	Tapered photonic crystal fibres: fundamental and applications
Cameron Smith	UoS	PhD	Eggleton, Grillet	Coupling into photonic crystal waveguides and cavities using tapered nanowires
Dane Austin	UoS	MSc	de Sterke, Eggleton	Sculpting supercontinuum generation
Steven Morrison	ANU	PhD	Kivshar	Electromagnetic waves and scattering in photonic crystals
Aaron Matthews	ANU	PhD	Kivshar	Photonic Crystals and Optical devices
Christian Rossberg	ANU	PhD	Neshev, Kivshar, Krolikowski	Bragg scattering in nonlinear photonic lattices
Ivan Garanovich	ANU	PhD	Sukhorukov, Kivshar, Neshev	All-optical switching in nonlinear modulated lattices
Robert Fisher	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, Kivshar and Krolikowski	Nonlocal Solitons
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
Jiafang Li	Swinb	PhD	Gu/Zhou/Jia	Radiation dynamics of three-dimensional photonic crystals fabricated by two-photon polymerization
Michael Byrne	UTS	PhD	Botten	Modal formulations for photonic crystal devices
Martin Ams	Macq	PhD	Withford, Dawes, Marshall	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
Nem Jovanovich	Macq	PhD	Withford, Fuerbach	Development of advanced ultrafast lasers for direct writing of photonic devices
Dionne Hayes	Macq	MPhil	Withford, Dawes, Bland-Hawthorn (AAO)	End face effects of Optical fibres in astronomy

## POSTGRAD COMPLETED IN 2007

Name		PhD/Masters	Supervisor	Title
Michael Ventura	Swinb	PhD	Gu	Fabrication and characterization of photonic crystal devices
Paul Steinvurzel	UoS	PhD	de Sterke, Steel, Eggleton	ARROW photonic crystal fibres
Vahid Ta'eed	UoS	PhD	Eggleton	Bragg gratings in highly nonlinear planar waveguides
Joe Mok	UoS	PhD	Eggleton, de Sterke	Nonlinear pulse propagation in Bragg gratings

# List of Students

## NEW POSTGRAD STUDENTS 2007

Name		PhD/Masters	Supervisor	Title
Michael Lee	UoS	PhD	Grillet, Eggleton	Optical cavities through photosensitivity in chalcogenide photonic crystals
Bill Corcoran	UoS	PhD	Eggleton, Mitchell	Tunable photonic circuits in lithium niobate
Jamie Vahn	UoS	MSc	de Sterke, Botten, Steel	
Jacek Gosciniaik	Macq	PhD	Dawes, Dekker, Steel	Plasmonics
Sara Ek	Macq	MPhil	Dawes, Withford	Waveguides in self assembled photonic crystals
Elisa Nicoletti	Swinb	PhD/Masters	Gu/Zhou	Development of new non linear materials for photonic crystal applications
Arthur Davoyan	ANU	PhD	Shadrivov, Sukhorukov, Kivshar	Nonlinear plasmonics and metamaterials

## HONOURS STUDENTS 2007

Name		Science or engineering	Supervisor	Project title
George Brawley	UoS	Physics	Eggleton	Impedance in Photonic Crystals
Maggie Chao	UoS	Engineering	Pelusi, Eggleton	Pulse Compression for High Speed Optical Communication
Tong Chen	UoS	Engineering	Roelens, Eggleton	Recirculating loop test bed for high capacity optical networks
Tim Iredale	UoS	Physics	Eggleton, Pelusi	Multichannel signal regeneration using NL fibres
Felix Lawrence	UoS	Physics	de Sterke, McPhedran, Botten	Impedance in Photonic Crystals
Sahand Mahmoodian	UoS	Physics	McPhedran, de Sterke, Botten	Investigation of Defect Modes in Photonic Crystal Bandgaps
Bhranavan Sivanandan	UoS	Engineering	M. Pelusi, Eggleton	OSNR monitoring using nonlinear optics for advanced modulation formats
Alessandro Tuniz	UoS	Physics	Eggleton	Raman modulation schemes in photonic structures
Darran Wu	UoS	Engineering	Kuhlmey, Eggleton, Bolger	Selectively Filling Photonic Crystal Fibres with Liquids for Supercontinuum Generation
James Boettiger	UoS	Engineering	Roelens, Eggleton	Clock recovery systems in optical time division multiplexed systems
Francis Bennet	ANU	Honours	Neshev, Krolikowski	Nonlinearity in temperature tuned liquid infiltrated photonic crystal fibres
Stephen Weber	Swinb	Honours	Gu, Zhou	Fabrication of two-dimensional photonic crystals and theoretical characterisation of superprism effect



CUDOS students 2007/2008