QUANTUM PHOTONIC CONNECTIONS CONFERENCE

cudos An ARC Centre of Excellence

PROGRAM THURSDAY, 24 NOVEMBER 2016

Lecture Theatre 1 | School of Physics | The University of Sydney

09:20 - 10:20	**Registration and Morning Tea**
10:20 - 10:30	*Welcome and Introduction*
SESSION 1	**QUANTUM PHOTONIC SOURCES**
10:30 - 11:20	KEYNOTE: Prof Chao-Yang Lu, University of Science and Technology China *Creating perfect single photons for the demonstration of quantum supremacy*
11:20 - 11:40	A/Prof Andrey Sukhorukov, Australian National University *Measurement of photon-pair generation in waveguide arrays with specialized poling*
11:40 - 12:00	Dr Alexander Solntsev, Australian National University *Entangled magnetic light generation in nonlinear nano-resonators*
12:00 - 12:20	*Panel Discussion*
12:20 - 14:00	**Lunch off site**
SESSION 2	**QUANTUM PHOTONIC COMMUNICATION**
14:00 - 14:30	INVITED TALK: Prof Tim Ralph, University of Queensland *Enhancing quantum communication channels*
14:30 - 14:50	Dr Sarah Kaiser, Macquarie University *Extending the reach of QKD: Satellite prototype for quantum communication*
14:50 - 15:10	Dr Birgit Stiller, The University of Sydney *10 GHz - continuous-variable quantum communication*
15:10 - 15:30	*Panel Discussion*
15:30 - 16:10	**Afternoon Tea and Poster Session** *(Harry Messel Foyer | Sydney Nanoscience Hub)*
SESSION 3	**QUANTUM PHOTONIC STATES I**
16:10 - 16:40	INVITED TALK: Prof Ping Koy Lam, Australian National University *Surpassing the no-cloning limit with hybrid probabilistic nonlinear amplifiers*
16:40 - 17:00	Mr Kai Wang, Australian National University *Quantum photon state reconstruction with nanostructured metasurfaces*
17:00 - 17:20	*Panel Discussion*

17:30 - 18:30

SPIE. OSA STUDENT CHAPTER UNIVERSITY OF SYDNEY

PUBLIC LECTURE by PROFESSOR TERRY RUDOLPH

at the Harry Messel Lecture Theatre | Sydney Nanoscience Hub

Computational cocktails with a twist of quantumness get you buzzed better

Scan the QR code to read the abstracts of the Invited Speakers or visit cudos.org.au/calendar/2016_quantum_abstracts.shtml

Australian Government Australian Research Council

NSW GOVERNMENT Department of Industry

NSW MAKING IT HAPPEN

NSW GOVERNMENT Office of the Chief Scientist & Engineer

QUANTUM PHOTONIC CONNECTIONS CONFERENCE

cudos
An ARC Centre of Excellence

PROGRAM FRIDAY, 25 NOVEMBER 2016

Lecture Theatre 1 | School of Physics | The University of Sydney

SESSION 1	**QUANTUM PHOTONIC COMPUTING**
09:30 - 10:20	KEYNOTE: Prof Terry Rudolph, Imperial College London *Why I am optimistic about silicon-photonic quantum computing*
10:20 - 10:40	Dr Peter Rohde, University of Technology Sydney *The revival of linear optics interferometry*
10:40 - 11:00	Dr Josh Combes, University of Queensland *A passive CPHASE gate via cross-Kerr nonlinearities*
11:00 - 11:20	*Panel Discussion*
11:20 - 11:50	**Morning Tea**
SESSION 2	**QUANTUM PHOTONIC COMPONENTS**
11:50 - 12:20	INVITED TALK: Dr Mirko Lobino, Griffith University *Quantum photonics with lithium niobate waveguides*
12:20 - 12:40	Ms Alice Mahoney, The University of Sydney *On-chip microwave circulators using quantum Hall plasmonics*
12:40 - 13:00	A/Prof Igor Aharonovich, University of Technology, Sydney *Quantum emitters in 2D materials*
13:00 - 13:20	*Panel Discussion*
13:20 - 14:10	**Lunch provided**
SESSION 3	**QUANTUM PHOTONIC STATES II**
14:10 - 14:40	INVITED TALK: A/Prof Matthew Sellars, Australian National University *Creation and storage of non-classical states of light using spin-waves in rare-earth doped crystals*
14:40 - 15:00	Mr James Titchener, Australian National University *Scalable on-chip quantum state tomography*
15:00 - 15:20	*Panel Discussion*
15:20 - 15:25	**Closing Remarks**

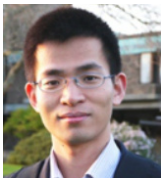
15:30 - 16:30

SPIE. OSA STUDENT CHAPTER UNIVERSITY OF SYDNEY

PUBLIC LECTURE by PROFESSOR CHAO-YANG LU

at the Harry Messel Lecture Theatre | Sydney Nanoscience Hub

From Chinese old legend to modern quantum information technologies



Scan the QR code to read the abstracts of the Invited Speakers or visit cudos.org.au/calendar/2016_quantum_abstracts.shtml

Australian Government
Australian Research Council

NSW GOVERNMENT Department of Industry

NSW MAKING IT HAPPEN

NSW GOVERNMENT Office of the Chief Scientist & Engineer