

QPL2016

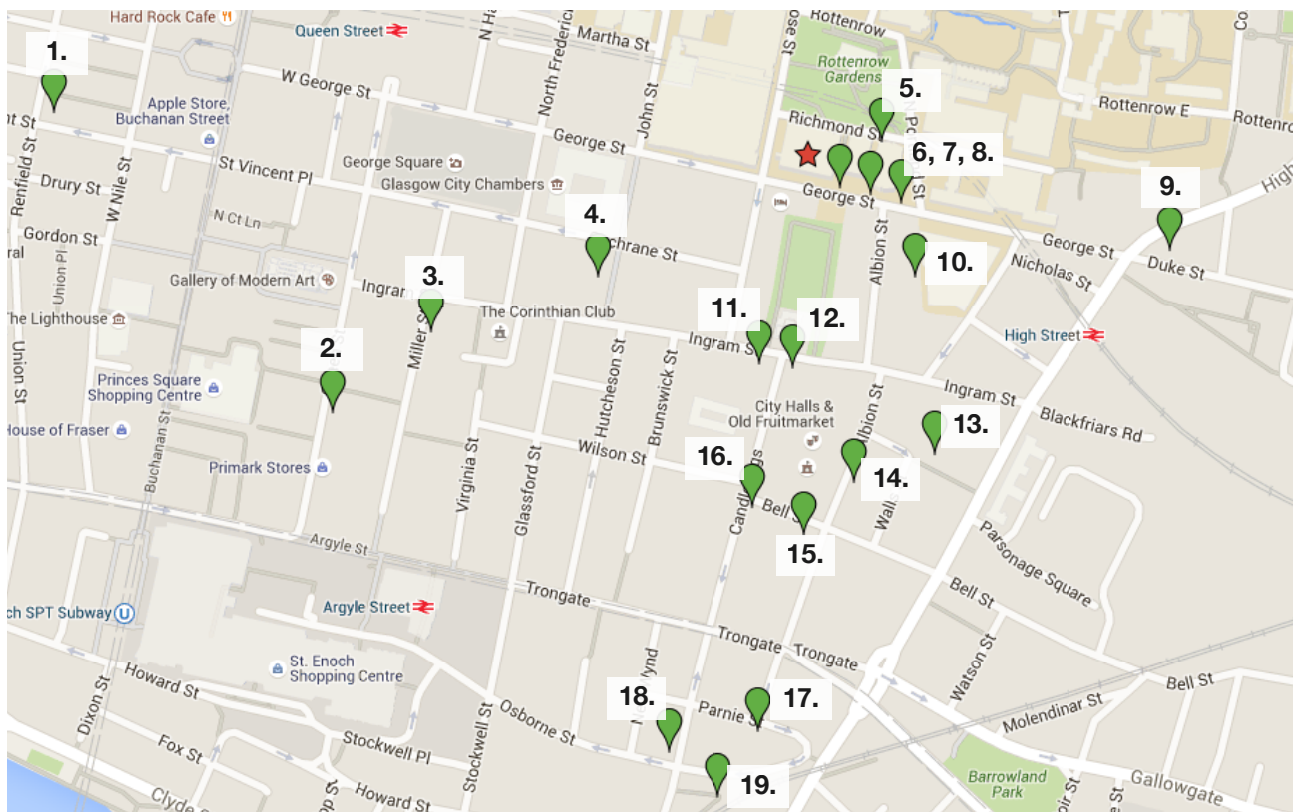
13th International Conference on Quantum Physics and Logic
6–10 June 2016, Glasgow, Scotland

Programme at a glance

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:30	Oi	McBride			
10:30			Kashefi	Roeteller	Leinster
11:00	<i>break</i>	<i>break</i>			
11:30	Kissinger	Selinger	Gachechiladze, Tsimakuridze, Budroni, Guehne	Westerbaan	Roumen
11:45				Cho, Westerbaan	
12:00			Abbott, Branciard		Caru
12:15			Gheorgiu, Wallden, Kashefi	Musto	
12:30			<i>lunch</i>	<i>lunch</i>	<i>lunch</i>
13:00	<i>lunch</i>	<i>lunch</i>			
14:00	Oreshkov	Wehner	Raussendorf	Duncan, Dunne	Rennela, Staton, Furber
14:15					
14:30			Abramsky, Barbosa, Mansfield	Backens, Perdrix, Wang	Westerbaan, Westerbaan
15:00		Sainz, Brunner, Cavalcanti, Skrzypczyk, Vertesi	Kunjwal, Spekkens	Gogioso, Genevese	Wilce
15:15				Hadzihasanovic	
15:30	<i>break</i>	<i>break</i>	Disilvestro, Markham	<i>break</i>	<i>break</i>
16:00	Kishida	Chiribella, Scandolo		Verdon, Vicary	Ozawa
16:15					
16:30		Lee, Selby		Pavlovic, Seidel	Hedges, Sadrzadeh
17:00		Coecke, Kissinger		Tull	Marsden
17:15		Contreras, Duman		Kissinger, Uijlen	Bankova, Coecke, Lewis, Marsden
	Poster session	Drinks reception		Conference dinner	

Venue : University of Strathclyde. McCance Building, Room 301, 16 Richmond St, Glasgow G1 1XQ

Lunch Suggestions

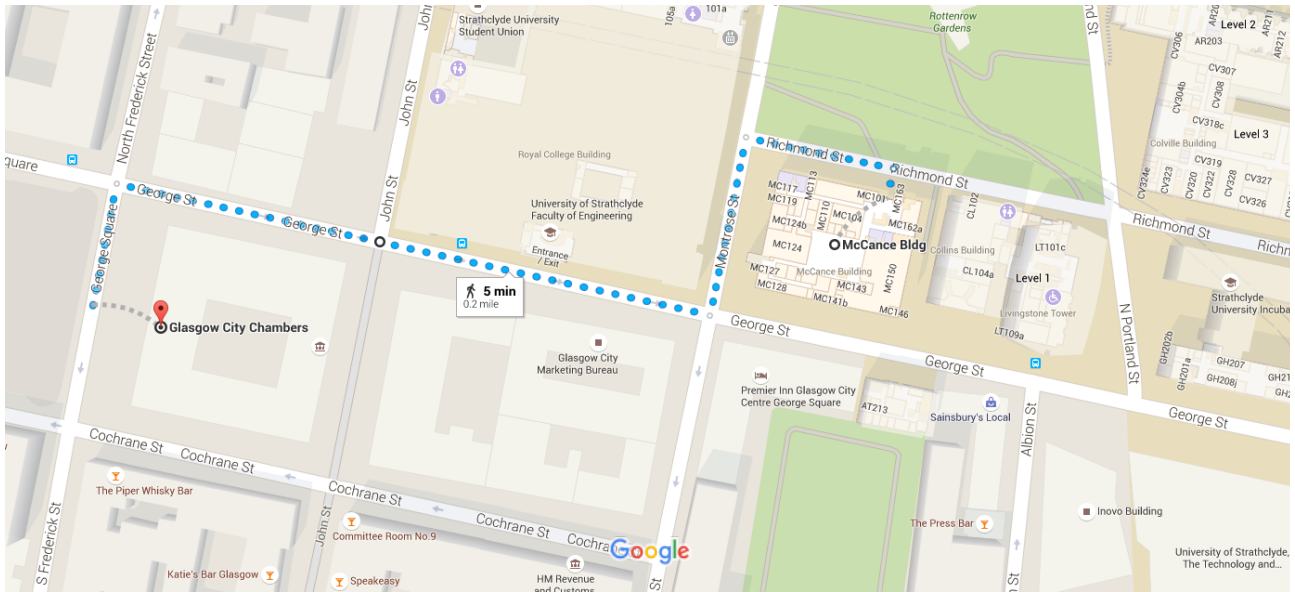


1. **Bread Meats Bread.** There are a million "fancy burger" joints on St Vincent Street. This is the best. You will have to wait but the staff will give you an accurate estimate of the waiting time.
2. **Ichiban.** Sushi
3. **Paesano Pizza.** Cavernous hanger serving proper pizza made fresh. £5—8 for a small pizza.
4. **Formerly known as Toni Macaroni.** Don't know its new name, but it has good value lunch deals. Another italian place next door.
5. **Nourish @crave (Livingston Tower).** Inside the Livingston Tower is the university cafe. It is probably the quickest option for lunch if you are pressed for time. Sit in or take away.
6. **Greggs.** Cheap and stodgy.
7. **Joanna Goodbite.** Sandwiches, filled rolls, burgers, baked potatoes. Doesn't look like much but it's good.
8. **Jamiesons Newsagent.** Hot rolls, soup, sandwiches. Get a roll with black pudding and bacon.
9. **McCune Smith.** Nice coffee; also sandwiches and cakes.
10. **Piece.** Sandwiches and salads. Pretty tasty.
11. **Lily's.** Good curry deals at lunchtime
12. **Spitfire Espresso.** Good coffee; hot filled rolls, many egg-based dishes; nice cakes.
13. **Babbity Bowster.** It's a good little pub, with a fancy menu and a little beer garden.
14. **Bar Home.** Pretty standard pub food, but they have keenly priced lunch deals.
15. **Blackfriars Bar.** Good pub for real ale fans. Also a decent lunch selection
16. **The Dhabba.** North Indian food. Reliable and prices are reasonable.
17. **Trans-Europe Café.** Sandwiches, salads, omelettes. Old railway seats.
18. **13th Note.** Nice vegan menu. Similar but not the same as the nearby Mono. Big on the inside.
19. **Mono.** Vegan bar with good food. Also has a record shop and hosts live music in the evenings.

For more lunch suggestions, dinner suggestions, or places for an after dinner drink, see the "Local Info" page on the website. <http://qpl2016.cis.strath.ac.uk/local.html>

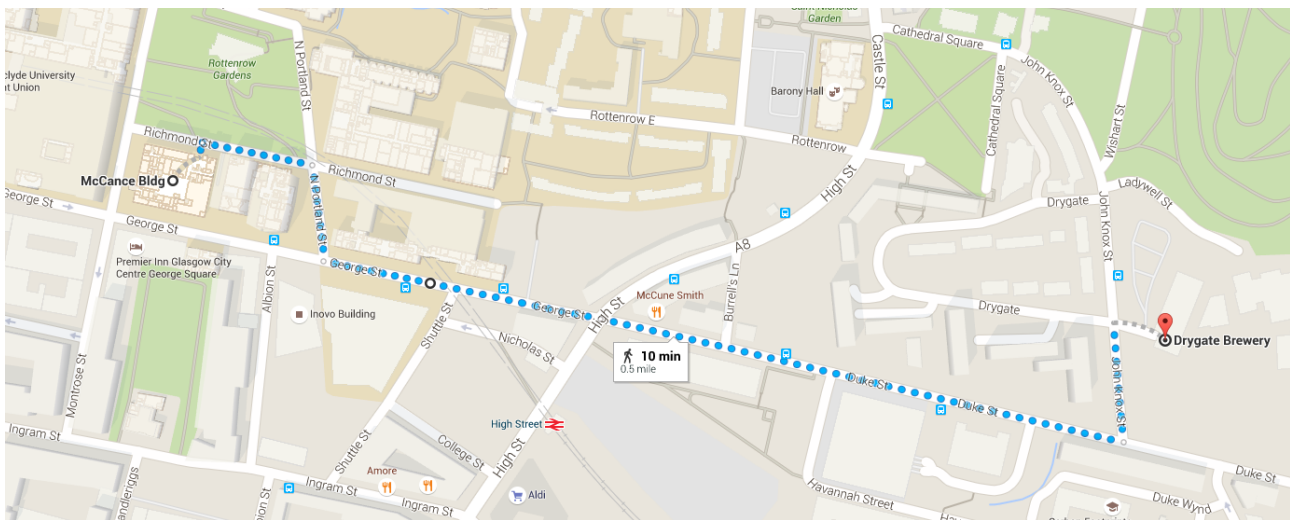
Tuesday 18:30

Drinks reception at the City Chambers



Thursday 18:00

Conference banquet at Drygate Brewery





QPL2016 on the internet

- <http://qpl2016.cis.strath.ac.uk>

Official website, last minute news and schedule changes, extensive local info.

 <https://www.facebook.com/qpl2016/> Be our friend!

 <https://plus.google.com/111715325980891821297/about> Lots of people scientists use G+

 <https://twitter.com/qpl2016/> Don't make snarky comments about the speakers, OK?

Sunday 5 June 2016

20:00 Welcome drinks at Mono. See the Lunch Suggestions map for the location.

Monday 6 June 2016

For abstracts and full papers see <http://qpl2016.cis.strath.ac.uk/accepted.html>

09:00	<i>Registration</i>
<i>Session Chair: Chris Heunen</i>	
09:30	Tutorial Lecture: Daniel Oi Quantum Foundations and Bell Experiments
11:00	<i>Break</i>
<i>Session Chair: Chris Heunen</i>	
11:30	Tutorial Lecture: Aleks Kissinger Process Theories and Graphical Languages
13:00	<i>Lunch</i>
<i>Session Chair: Ross Duncan</i>	
14:00	Tutorial Lecture: Kohei Kishida Non-Locality, Contextuality, and Sheaves
15:30	<i>Break</i>
<i>Session Chair: Ross Duncan</i>	
16:00	Tutorial Lecture: Ognjan Oreshkov Causality and indefinite causal structures in quantum theory
17:30	Poster Session
19:00	

List of Posters

- **Stefano Gogioso**. Process Theories with Environments
- **Jisho Miyazaki**. Extensions and composites in topos quantum theory
- **Samson Abramsky and Giovanni Carù**. Identifying All-vs-Nothing Arguments in Stabiliser Theory
- **Bert Lindenhovius**. Comparing posets of commutative C^* -subalgebras with posets of commutative von Neumann subalgebras
- **Jennifer Paykin, Robert Rand and Steve Zdancewic**. QWIRE: A QRAM-Inspired Quantum Circuit Language
- **Václav Potoček**. Measurement reversal without paradoxes
- **Linde Wester**. Equivalent Paradigms of Contextuality
- **Kevin Dunne**. A New Perspective on Observables in the Category of Relations
- **Xiaoyan Gong and Qianlong Wang**. Equivalence of Local Complementation and Euler Decomposition in the Qutrit ZX-calculus
- **Marco Piani, Marco Cianciaruso, Thomas Bromley, Carmine Napoli, Nathaniel Johnston and Gerardo Adesso**. Robustness of asymmetry and coherence of quantum states

Tuesday 7 June 2016

For abstracts and full papers see <http://qpl2016.cis.strath.ac.uk/accepted.html>

09:00	Registration
<i>Session Chair: Viv Kendon</i>	
09:30	Tutorial Lecture: Conor McBride Logic and Functional Programming
11:00	Break
<i>Session Chair: Viv Kendon</i>	
11:30	Tutorial Lecture: Peter Selinger Introduction to Quipper
13:00	Lunch
<i>Session on Uncertainty. Session Chair: Ognyan Oreshkov</i>	
14:00	Invited Lecture: Stephanie Wehner From Bell inequality violations towards device independence of general quantum cryptographic protocols
15:00	A. B. Sainz, N. Brunner, D. Cavalcanti, P. Skrzypczyk and T. Vértesi. Postquantum Steering
15:30	Break
<i>Session on Operational Theories. Session Chair: Dusko Pavlovic</i>	
16:00	G. Chiribella and C. M. Scandolo An operational resource theory of purity
16:30	C. Lee and J. Selby Grover's search and higher-order interference
17:00	B. Coecke and A. Kissinger Generalised no-broadcasting for process theories.
17:15	I. Contreras and A. Duman Geometric Quantization and Epistemically Restricted Theories
17:30	Conference Photo!
18:30	Drinks reception at the City Chambers on George Square

Wednesday 8 June 2016

For abstracts and full papers see <http://qpl2016.cis.strath.ac.uk/accepted.html>

10:00	Registration
<i>Session on Quantum Information. Session Chair: Daniel Oi</i>	
10:30	Invited Lecture: Elham Kashefi TBA
11:30	M. Gachechialdze, N. Tsimakuridze, C. Budroni and O. Guehne Hypergraph states, their entanglement and robustness properties
12:00	A. A. Abbott and C. Branciard Noise and Disturbance for Qubit Measurements: An Information-Theoretic Characterisation
12:15	A. Gheorghiu, P. Wallden and E. Kashefi Rigidity of quantum steering and one-sided device-independent verifiable quantum computation
12:30	Lunch
<i>Session on Contextuality. Session Chair: Jamie Vicary</i>	
14:00	R. Raussendorf Cohomological framework for contextual quantum computations
14:30	S. Abramsky, R. Soares Barbosa and S. Mansfield Quantifying contextuality via linear programming
15:00	R. Kunjwal and R. Spekkens Noncontextuality inequalities for Specker's compatibility scenario
15:30	L. Disilvestro and D. Markham Quantum Protocols within Spekkens' Toy Model
15:45	

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Thursday 9 June 2016

For abstracts and full papers see <http://qpl2016.cis.strath.ac.uk/accepted.html>

10:00	Registration
<i>Session on quantum programming. Session chair: Peter Selinger</i>	
10:30	Invited Lecture: Martin Roeteller Reversible circuit compilation with space constraints
11:30	A. Westerbaan. Quantum Programs as Kleisli Maps
11:45	K. Cho and A. Westerbaan Von Neumann Algebras Form a Model for the Quantum Lambda Calculus
12:15	B. Musto. Constructing mutually unbiased bases from quantum Latin squares
12:30	Lunch
<i>Session on categorical calculi. Session chair: Bart Jacobs.</i>	
14:00	R. Duncan and K. Dunne Interacting Frobenius Algebras are Hopf
14:30	M. Backens, S. Perdrix and Q. Wang A Simplified Stabilizer ZX-calculus
15:00	S. Gogioso and F. Genovese Infinite-dimensional Categorical Quantum Mechanics
15:15	A. Hadzihasanovic. A topological perspective on interacting algebraic theories
15:30	Break
<i>Session on categorical models. Session chair: Bob Coecke</i>	
16:00	D. Verdon and J. Vicary Tight reference frame--independent quantum teleportation
16:30	D. Pavlovic and P.-M. Seidel (Modular) effect algebras are equivalent to (Frobenius) antispecial algebras
17:00	S. Tull. Operational Theories of Physics as Categories
17:15	A. Kissinger and S. Uijlen. Picturing Indefinite Causal Structure
17:30	
18:00	Banquet at Drygate Brewery Reception from 18:00. Dinner will be served at 19:00

Friday 10 June 2016

For abstracts and full papers see <http://qpl2016.cis.strath.ac.uk/accepted.html>

10:00	Registration
<i>Session on categories and cohomology. Session Chair: Samson Abramsky</i>	
10:30	Invited Lecture: Tom Leinster In search of the spectrum
11:30	F. Roumen Cohomology of effect algebras
12:00	G. Carù. On the Cohomology of Contextuality
12:30	Lunch
<i>Session on operator algebra. Session Chair: Prakash Panangaden</i>	
14:00	M. Rennela, S. Staton and R. Furber Infinite-dimensionality in quantum foundations: W^* -algebras as presheaves over matrix algebras
14:30	A. Westerbaan and B. Westerbaan Paschke Dilations
15:00	A. Wilce. A Royal Road to Quantum Theory (or thereabouts)
15:30	Break
<i>Session on Logic and Language. Session Chair: Michael Moortgat</i>	
16:00	M. Ozawa Operational meanings of orders of observables defined through quantum set theories with different conditionals
16:30	J. Hedges and M. Sadrzadeh A Generalised Quantifier Theory of Natural Language in Categorical Compositional Distributional Semantics with Bialgebras
17:00	D. Marsden. Ambiguity and Incomplete Information in Categorical Models of Language
17:15	D. Bankova, B. Coecke, M. Lewis and D. Marsden Graded Entailment for Compositional Distributional Semantics
17:30	FIN.

Saturday 11 June 2016

Don't forget the workshop on *Semantic Spaces at the Intersection of NLP, Physics and Cognitive Science!* Featuring: Hans Briegel, Peter Gärdenfors, Dominic Widdows, and more! It's also happening on the third floor of the McCance building, in room 319.

For the full workshop programme see <https://www.sites.google.com/site/semsspworkshop/programme>

List of participants

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