

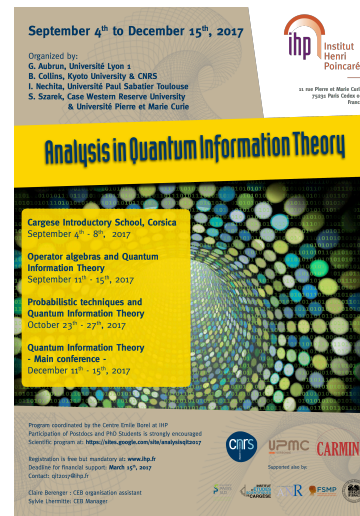
«Analysis in Quantum Information Theory»

Paris, September 4th – December 15th, 2017

Main Conference "Quantum Information Theory"

Paris, December 11th – 15th, 2017

Amphitheater Hermite



Organizers : Omar Fawzi (ENS Lyon), Aram Harrow (MIT Center for Theoretical Physics), Jordanis Kerenidis (Université Paris Diderot), Stanislaw Szarek (Case Western Reserve University/UPMC), Andreas Winter (Universitat Autònoma de Barcelona)

Invited speakers :

Mario Berta (Imperial)
Fernando Brandao (Caltech)
Matthias Christandl (Copenhagen)
Toby Cubitt (UCL)
Nilanjana Datta (Cambridge)
Masahito Hayashi (Nagoya)
Rahul Jain (Singapore)

Stacey Jeffery (CWI Amsterdam)
Sophie Laplante (Paris)
Mathieu Lauriere (NYU Shanghai)
Anthony Leverrier (INRIA)
Miguel Navascues (Vienna)
Ashwin Nayak (Waterloo)
Stefano Pironio (Brussels)

Jérémie Roland (Brussels)
Norbert Schuch (Munich)
David Sutter (Zurich)
Barbara Terhal (Delft)
Dave Touchette (Waterloo)
Stephanie Wehner (Delft)
Mark Wilde (Baton Rouge)

PROGRAM

Monday December 11th

09.00 am – 09.30 am Registration and welcome coffee – IHP ground floor

09.30 am – 10.15 am	Nilanjana Datta	A surprising majorization relation and its applications.
10.15 am – 11.00 am	Coffee break	IHP ground floor
11.00 am – 11.45 am	Anthony Leverrier	Efficient decoding of random errors for quantum expander codes.
11.45 am – 12.30 pm	Mark Wilde	Optimized quantum f-divergences and data processing.
12.30 pm – 02.30 pm	Lunch break	
02.30 pm – 03.15 pm	Mario Berta	Matrix trace inequalities for quantum entropy.
03.15 pm – 04.00 pm	Coffee break	IHP ground floor
04.00 pm – 04.45 pm	David Sutter	Generalized maximum entropy estimation.

Tuesday December 12th

09.30 am – 10.15 am	Dave Touchette	Capacity Approaching Coding for Low Noise Interactive Quantum Communication.
10.15 am – 11.00 am	Coffee break	IHP ground floor
11.00 am – 11.45 am	Mathieu Lauriere	The information cost of quantum memoryless protocols.
11.45 am – 12.30 pm	Ashwin Nayak	Quantum information trade-off for Augmented Index.
12.30 pm – 02.30 pm	Lunch break	
02.30 pm – 03.15 pm	Matthias Christandl	Universal points in the asymptotic spectrum of tensors.
03.15 pm – 04.00 pm	Coffee break	IHP ground floor
04.00 pm – 04.45 pm	Poster session I	

Wednesday December 13th

09.30 am – 10.15 am	Barbara Terhal	What Hamiltonians are stoquastic?
10.15 am – 11.00 am	Coffee break	IHP ground floor
11.00 am – 11.45 am	Stefano Pironio	The simplest device-independent scenario with a classical/quantum separation.
11.45 am – 12.30 pm	Stephanie Wehner	(Some) challenges and tools on a quantum internet.

Lunch break – Free time to visit Paris

06.00 pm – 09.00 pm Cocktail Dinner

**Pierre and Marie Curie University
Zamansky Tower – 24th floor
4 place Jussieu – 75005 Paris
Subway line 7 – Station : Jussieu
Note : Bring your ID card or Passport**

Thursday December 14th

09.30 am – 10.15 am	Masahito Hayashi	Verification of Measurement-Based Quantum Computation.
10.15 am – 11.00 am	Coffee break	IHP ground floor
11.00 am – 11.45 am	Fernando Brandao	Matrix Product Operators and Approximate Quantum Markov Chains.
11.45 am – 12.30 pm	Rahul Jain	New one-shot protocols for quantum communication tasks.
12.30 pm – 02.30 pm	Lunch break	
02.30 pm – 03.15 pm	Toby Cubitt	Hamiltonian Simulation and Universal Quantum Hamiltonians.
03.15 pm – 04.00 pm	Coffee break	IHP ground floor
04.00 pm – 04.45 pm	Poster session II	

Friday December 15th

09.30 am – 10.15 am	Norbert Schuch	Entanglement in complex quantum systems.
10.15 am – 11.00 am	Coffee break	IHP ground floor
11.00 am – 11.45 am	J�r�mie Roland	The quantum query complexity of sorting under partial information.
11.45 am – 12.30 pm	Stacey Jeffery	Verifier-on-a-Leash: new schemes for verifiable delegated quantum computation, with quasilinear resources.
12.30 pm – 02.30 pm	Lunch break	
02.30 pm – 03.15 pm	Sophie Laplante	Robust Bell inequalities from communication complexity.
03.15 pm – 04.00 pm	Coffee break	IHP ground floor
04.00 pm – 04.45 pm	Miguel Navascues	Resetting uncontrolled quantum systems.

Abstracts are available on the website of the trimester «Analysis in Quantum Information Theory»
<https://sites.google.com/site/analysisqit2017/main-events/conference-on-quantum-information-theory>



All lectures will be videotaped

