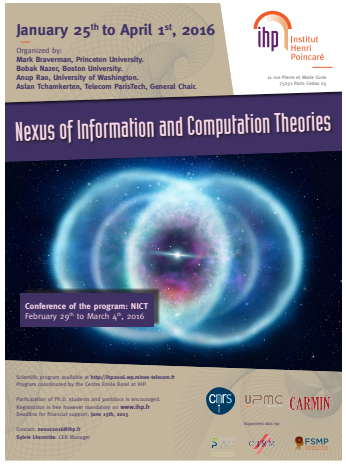
Institut Henri Poincaré

« Nexus of Information and Computation Theories »
Paris, January 25th – April 1st, 2016

Conference of the program NICT
Paris, February 29th – March 4th, 2016

Amphitheater Hermite



Organizers :
Mark Braverman (Princeton University)
Bobak Nazer (Boston University)
Anup Rao (University of Washington)
Aslan Tchamkerten (Télécom Paristech)

Speakers :
Bruno Bauwens (Higher School of Economics)
Vladimir Braverman (Johns Hopkins)
Stephen Chestnut (ETH Zurich)
Giacomo Como (Lund University)
Michelle Effros (California Institute of Technology)
Omar Fawzi (ENS Lyon)
Frederic Gabry (Huawei)
Ankit Garg (Princeton)
Ran Gelles (Princeton)
Sidharth Jaggi (CUHK)
Iordanis Kerenidis (Université Paris Diderot 7)
Robert Krauthgamer (Weizmann Ins. of Science)
Petr Kuznetsov (Télécom Paristech)
Olgica Milenkovic (University of Illinois)
Shay Moran (Technion)
Ayfer Özgür (Stanford)
Max Raginsky (University of Illinois)
Boris Ryabko (Russian Academy of Science)
Shlomo Shamai (Technion)
Ofer Shayevitz (Tel Aviv University)
Rajesh Sundaresan (IISc)
David Woodruff (IBM Almaden)
Aaron Wagner (Cornell)
Amir Yehudayoff (Technion)
Abdellatif Zaidi (Université Paris-Est)

PROGRAM

Monday February 29th

09.15 am – 09.50 am	**Registration**	IHP ground floor
09.55 am – 10.30 am	**Shay Moran**	The information theoretic lower bound for comparison based sorting is (almost) tight, even when there is an arbitrary known distribution on the input array.
10.30 am – 10.50 am	Coffee break	IHP ground floor
10.50 am – 11.25 am	**Olgica Milenkovic**	New Directions in Correlation Clustering and Biclustering.
11.30 am – 12.05 pm	**Shlomo Shamai**	Information Theory: Old and New - A Personal View.
12.05 pm – 02.20 pm	Lunch break	
02.20 pm – 02.55 pm	**Giacomo Como**	Analysis and Control of Cascading Dynamics in Large-Scale Networks.
03.00 pm – 03.35 pm	**Bruno Bauwens**	Asymmetry of online Kolmogorov complexity.
03.35 pm – 03.55 pm	Coffee break	IHP ground floor
03.55 pm – 04.30 pm	**Stephen Chestnut**	Streaming Symmetric Norms via Measure Concentration.

Tuesday March 1st

09.15 am – 09.50 am	**Ayfer Özgür**	Improving on the cutset bound via a geometric analysis of typical sets.
09.55 am – 10.30 am	**Abdellatif Zaidi**	On Two Terminal Interactive Source Coding for Function Computation with Remote Sources.
10.30 am – 10.50 am	Coffee break	IHP ground floor
10.50 am – 11.25 am	**Rajesh Sundaresan**	Learning to detect an oddball target.
11.30 am – 12.05 pm	**Michelle Effros**	Reduction for Information Theory.
12.05 pm – 02.20 pm	Lunch break	
02.20 pm – 02.55 pm	**Sidharth Jaggi**	Deniable/covert/stealthy/LPD communication.
03.00 pm – 03.35 pm	**Aaron Wagner**	An Operational Measure of Information Leakage.
03.35 pm – 03.55 pm	Coffee break	IHP ground floor

Wednesday March 2nd

09.15 am – 09.50 am	**Amir Yehudayoff**	Geometric stability via information theory.
09.55 am – 10.30 am	**Robert Krauthgamer**	Sketching Graphs and Combinatorial Optimization.
10.30 am – 10.50 am	Coffee break	IHP ground floor
10.50 am – 11.25 am	**Iordanis Kerenidis**	How can we separate Information and Communication complexity?
11.30 am – 12.05 pm	**Ran Gelles**	Constant-rate coding for multiparty interactive communication is impossible.

Thursday March 3rd

09.15 am – 09.50 am	**Vladimir Braverman**	Beating CountSketch for Heavy Hitters in Insertion Streams.
09.55 am – 10.30 am	**Ankit Garg**	Communication Lower Bounds for Statistical Estimation Problems via a Distributed Data Processing Inequality.
10.30 am – 10.50 am	Coffee break	IHP ground floor
10.50 am – 11.25 am	**Ofer Shayevitz**	Zero-error capacity for multiuser channels.
11.30 am – 12.05 pm	**Omar Fawzi**	Algorithmic Aspects of Optimal Channel Coding.
12.05 pm – 02.20 pm	Lunch break	
02.20 pm – 02.55 pm	**David Woodruff**	Sketching as a Tool for Numerical Linear Algebra.
03.00 pm – 03.35 pm	**Max Raginsky**	Information-Theoretic Lower Bounds for Distributed Function Computation.
03.35 pm – 03.55 pm	Coffee break	IHP ground floor
03.55 pm – 04.30 pm	**Petr Kuznetsov**	Combinatorial Structures for Distributed Computing Models.
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**

Friday March 4th

09.15 am – 09.50 am	**Sidharth Jaggi**	Between Shannon and Hamming: Codes against limited adversaries.
09.55 am – 10.30 am	**Boris Ryabko**	An information-theoretic approach to estimate the capacity of computers and similar devices.
10.30 am – 10.50 am	Coffee break	IHP ground floor
10.50 am – 11.25 am	**Frederic Gabry**	Distributed storage codes - turning unreliable nodes into a reliable storage network.

Abstracts are available on the website of the trimester « Nexus of Information and Computation Theories » : http://csnexus.info/workshoptitles.html