

P vs NP and Complexity Lower Bounds
Schedule
L1

Monday 29 September

9:00-9:45	Leslie Valiant, <i>A combinatorial quantity in counting complexity</i>
9:45-10:30	David Zuckerman, <i>Randomness extractors, pseudorandom generators, and lower bounds</i>
10:30-11:00	Coffee
11:00-11:45	Ben Rossman, <i>The Mystery of Negations</i>
11:45-14:00	Lunch
14:00-14:45	Ryan O'Donnell, <i>No exponential quantum speedup for SIS_{∞} anymore</i>
14:45-15:30	Henry Yuen, <i>The power and limits of constant-time quantum computation</i>
15:30-16:00	Coffee

Tuesday 30 September

9:00-9:45	Toniann Pitassi, <i>Data structure lower bounds, local PRGs, and range avoidance: new connections and lower bounds</i>
9:45-10:30	Pavel Pudlák, <i>NP vs. coNP and hard tautologies</i>
10:30-11:00	Coffee
11:00-11:45	Igor Oliveira, <i>Meta-mathematics of P vs NP</i>
11:45-14:00	Lunch
14:00-14:45	Iddo Tzameret, <i>The algebraic approach to proof complexity</i>
14:45-15:30	Nutan Limaye, <i>Recent progress on algebraic circuit lower bounds</i>
15:30-16:00	Coffee
16:00-16:45	Shubhangi Saraf, <i>The complexity of factors of polynomials</i>

Wednesday 1 October

10:00-11:00	Vladimir Šverák, <i>A report on the Navier-Stokes Problem</i>
11:00-11:30	Coffee
11:30-12:30	Chris Skinner, <i>The Birch—Swinnterton-Dyer Conjecture: a millennium prize problem at 25</i>
12:30-14:30	Lunch
14:30-15:30	Martin Hairer, <i>Yang-Mills and the Mass Gap</i>
15:30-16:00	Coffee
16:00-17:00	Avi Wigderson, <i>P vs NP</i>
17:00	Reception in Mathematical Institute
19:00	Dinner at Exeter College for invited guests

Thursday 2 October

10:00-11:00	Jeff Brock, <i>3-manifolds after Perelman: topology, geometry, and effective rigidity</i>
11:00-11:30	Coffee
11:30-12:30	Bruce Kleiner, <i>Ricci flow after Perelman</i>
12:30-14:30	Lunch
14:30-15:30	Burt Totaro, <i>The Hodge conjecture: geometry and analysis</i>
15:30-16:00	Coffee
16:00-17:00	Kannan Soundararajan, <i>Progress on zeta and L-functions motivated by the Riemann hypothesis</i>

Friday 3 October

- 9:00-9:45 Michal Koucky, *Recent developments in catalytic computing*
9:45-10:30 Ryan Williams, *Simulating time with square-root space*
10:30-11:00 Coffee
11:00-11:45 Christian Ikenmeyer, *Algebraic metacomplexity and representation theory*
11:45-14:00 Lunch
14:00-14:45 Eric Allender, *Progress on the power of recognizing randomness*
14:45-15:30 Valentine Kabanets, *Kolmogorov's approach to P vs NP*
15:30-16:00 Coffee
16:00-16:45 Shuichi Hirahara, *NP -hardness of the Minimum Circuit Size Problem from well-studied assumptions*