

## Arithmetic Geometry, Number Theory, and Computation, August 20-24, 2018

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<b>Monday</b>	8:30-9:30	Registration and coffee
	9:30-9:45	Welcome
	9:45-10:45 (slides)	Karl Rubin (UCI) and Barry Mazur (Harvard) <i>A heuristic for abelian points on elliptic curves</i>
	11:00-12:00	Aurel Page (INRIA, Université de Bordeaux) <i>Algorithms for the cohomology of compact arithmetic manifolds and Hecke operators</i>
	12:00-1:45	Lunch
	1:45-2:45	Jordan Ellenberg (University of Wisconsin, Madison) <i>Heights of rational points on stacks</i>
	3:00-4:00	Problem Session
	4:00-4:45	Afternoon tea/coffee
	4:45-5:45	Hendrik Lenstra (Universiteit Leiden) <i>The complexity of root-finding in orders</i>
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<b>Tuesday</b>	9:30-10:30 (slides)	Yuri Bilu (Université de Bordeaux) <i>A <math>j</math>-invariant of a CM elliptic curve is not a unit</i>
	11:00-12:00	Bianca Viray (University of Washington) <i>On the level of modular curves that give rise to sporadic <math>j</math>-invariants</i>
	12:00-12:10	Group photo (assemble in the courtyard outside 2-190)
	12:10-1:45	Lunch
	1:45-2:45 (slides)	David Roberts (University of Minnesota, Morris) <i>Collecting lightly ramified <math>L</math>-functions</i>
	3:00-4:00	Chantal David (Concordia University) <i>Moments of cubic Dirichlet twists over function fields</i>
	4:00-4:45	Afternoon tea/coffee
	4:45-6:15	Short talks
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<b>Wednesday</b>	9:00-10:00 (slides)	John Cremona (University of Warwick) <i>Elliptic curves of prime conductor over imaginary quadratic fields with class number one</i>
	10:15-11:15	Kirsten Eisenträger (Pennsylvania State University) <i>Cryptography in the age of quantum computing</i>
	11:30-12:30	Melanie Matchett Wood (University of Wisconsin, Madison) <i>Nonabelian Cohen–Lenstra heuristics</i>
	12:30	Free afternoon

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<b>Thursday</b>	9:30–10:30	Tim Dokchitser (University of Bristol) <i>Models of curves</i>
	11:00–12:00	Irene Bouw (Universität Ulm) <i>Picard curves with small conductor</i>
	12:00–1:45	Lunch
	1:45–2:45	Samir Siksek (University of Warwick) (slides) <i>On the asymptotic Fermat conjecture</i>
	3:00–4:00	Vladimir Dokchitser (King's College London) (slides) <i>Parity of the Mordell–Weil rank of an abelian surface</i>
	4:00–4:45	Afternoon tea/coffee
	4:45–5:45	Anthony Várilly-Alvarado (Rice University) (slides) <i>Cubic fourfolds and odd-torsion Brauer–Manin obstructions on general <math>K3</math> surfaces</i>
<b>Friday</b>	9:30–10:30	Kiran Kedlaya (UC San Diego/IAS) (slides) <i>Hypergeometric <math>L</math>-functions via Frobenius structures</i>
	11:00–12:00	David Harvey (University of New South Wales) (slides) <i>Integer multiplication and the truncated product problem</i>
	12:00–1:45	Lunch
	1:45–2:45	Michael Stoll (Universität Bayreuth) (slides) <i>Genus 2 curves with several points contained in an arithmetic progression in its Jacobian</i>
	3:00–4:00	René Schoof (Università di Roma Tor Vergata) (slides) <i>Equations for modular curves associated to normalizers of non-split Cartan subgroups</i>
	4:00–4:45	Afternoon tea/coffee