Mathcamp 2015 Tentative Four-Week Schedule

Time	Week 1	Week 2	Week 3	Week 4
9:10	[**HR**] Mathcamp Crash Course (Alfonso)	Markov Chains (*Nina White*) / Aperiodic Tiling (Steve)	[**HR**] Mathematical Magic (Don)	Shortest Distance (Jeff)
	Linear Algebra (Mark)	[**HR**] Abel's Theorem (2/5) (Asilata + Julian + Mira)	[**HR**] Network and Combinatorial Optimization (Sam)	Many Facets of Optimization (Tim!)
	[**HR**] Problem Solving: Inequalities (Pesto)	Functions of a Complex Variable (1/2) (Mark)	Functions of a Complex Variable (2/2) (Mark)	Homotopy Theory (Chris)
	Metric Spaces (Steve)	Continued Fractions (1/2) (Susan)	Absolute Values (J-Lo)	Tiling Problems (Sachi)
	Geometric Optics (*Allan Adams*) / Differentiation under the Integral Sign (Kevin)	Problem Solving: Combinatorics (Misha)	[**HR**] Lebesgue Measure (Alfonso + Steve)	Laurent Phenomenon (Kevin)
10:10	[**HR**] Statistical Modelling (Sam)	Tower of Hanoi (Julian) / Chromatic Numbers (*Moon Duchin*)	Graphs on Surfaces (Marisa)	Unlikely Maths (Misha)
	Measure and Martin's Axiom (Susan)	Generating Functions (Mark)	[**HR**] Lie Algebras (Asilata + Kevin)	Trail Mix → (Mark)
	Multivariable Calculus (Mark)	Counting the Faces of Cut-Up Spaces (*Matt Stamps*)	[**HR**] Abel's Theorem (3/5) (Mira + Ruthi)	[**HR**] Ultrafilters (Steve)
	(re)Intro to Polynomials (*Adam Marcus*)	Intro Complexity (Pesto)	Continued Fractions (2/2) (Susan)	Number Theory Polynomials (*Noah Snyder*)
	[**HR**] Intro Groups (Mira)	Fundamental Group (Sachi)	Szemeredi's Regularity Lemma (*Po-Shen Loh*) / Ordinal Arithmetic (Jalex)	P vs NP (Pesto + Jalex)
11:10	Algorithms (Michelle Bodnar)	Galois Cohomology (Ruthi)	Classifying Spaces (Chris)	Hyperbolic Geometry (*Katie Mann*)
	[**HR**] Abel's Theorem (1/5) (Alfonso + Mira + Julian)	Unsolved Problems in Astronomy → (*Charles Steinhardt*)	Representation Theory (1/2) (Mark)	[**HR**] Category Theory in Sets (Don)
	Classifying Symmetry (*Frank Farris*) / Compactness in Logic (*Matt Wright*)	Intro Knot Theory (Nancy)	The Factorial Function (Sachi)	Apollonian Circle Packings (*Sunny Xiao*)
	[**HR**] Point-set Topology (Nancy)	[**HR**] Reflection Groups (Don)	Braid Group (Nancy)	[**HR**] Galois Theory (Nancy)
	Special Relativity (*Nic Ford*)	[**HR**] Banach–Tarski Paradox (Alfonso + Chris)	Error-Correcting Codes (Tim!)	Voting Theory (Alfonso)
1:10	[**HR**] Non-classical Constructions (Chris)	[**HR**] Turing and his Work (Sam)	Cryptography (Pesto)	[**HR**] Abel's Theorem (4/5) (Alfonso + Mira)
	Infinitesimals (Don)	Coloring Maps (Jeff + Marisa)	[**HR**] Fundamental Theorem of Calculus in Dimension n (Jeff)	Development of Probability (Sam)
	Time-Frequency Analysis (Jeff)	Summing Series (Kevin)	Exploring Equality (*Jason Gross*)	The Hidden Dance of PDEs (*Adam Larios + Jared Whitehead*)
	[**HR**] Ring Theory (Sachi)	Ham Sandwich Theorems (Yuval)	History of Math (*Moon Duchin*) / Tropical Curves (Ruthi)	Representation Theory (2/2) (Mark)
	Algorithms in Number Theory (Misha)	[**HR**] Banach–Tarski Paradox (Alfonso + Chris)	[**HR**] Automated Proofs in Geometry (Misha)	Advanced Linear Algebra (Asilata) / Normal Numbers (Steve + Susan)

Key: [**HR**]—Homework Required