Mathcamp 2023 Tentative Four-Week Schedule

Time	Week 1	Week 2	Week 3	Week 4
9 am	Cubic curves (Mark)	Beyond inclusion/exclusion (*John Mackey*)	Consistency of arithmetic (Della)	Finite fields (*Aaron Landesman*)
	Fourier series (*Jonathan Tannenhauser*)	Epsilons and deltas (Ben & Charlotte)	Functions of a complex variable (1/2) (Mark)	Functions of a complex variable (2/2) (Mark)
	Inspecting gadgets (Della)	Infinite Ramsey theory (Susan)	Music: the number theory of sound (*J-Lo*)	High-school algebraic geometry (Neeraja) / McKelvey's Chaos Theorem (Ben)
	Introduction to linear algebra (Narmada)	Representation theory of the symmetric groups (Raj)	Problem solving: olympiad inequalities (Ian)	Kuratowski's game (Ian) / Markov chain Monte Carlo (*Moon Duchin*)
	Khinchin's constant and the ergodic theorem (Ben)	What are your numbers worth? (Eric)	Solving equations with origami (Eric)	Vhat are your vectors worth? (Travis)
10 am	Discreet calculus (shh!) (Travis)	Introduction to cryptography (Ian)	A very chill intro to measure theory + dimension (Charlotte)	Gaussian magic (Tanya)
	Introduction to number theory (Mia)	Introduction to model theory (Krishan)	Graph colorings (Mia)	How to rob your friends (Arya) / How to rob your friends 2 (Eric)
	Metric spaces (Krishan) / Homotopy groups of spheres (Kevin)	Mechanics of fluid flow (Neeraja)	Guess Who? (1/2) (Tim!)	Mathematical Concepts for Solving Puzzles (Della)
	Multivariable calculus (Mark)	Polygons, friezes, and snakes — oh my! (Kayla)	How to build a donut (Kayla)	Polynomial methods (Narmada)
	Reverse mathematics (Steve)	Problem solving: triangle geometry (*Zach Abel*)	How to count rings (Kevin)	Problem solving: induction (Misha)
11 am	Erdős's distinct distance problem (Neeraja)	Gödel's incompleteness theorems (Steve)	All aboard the Möbius (Narmada)	Guess Who? (2/2) (Tim!)
	Geometric constructions (Arya)	Introduction to ring theory (Kevin)	Calculus of variations (Ben & Steve)	Matroids and the chromatic polynomial (Raj)
	Information theory (*Mira Bernstein*)	Parabolic curves (Misha) / Elliptic curves (*Ruthi Hortsch*)	Generating functions, Catalan numbers, and partitions (Mark)	Perron trees (Charlotte) / aspacefillingcurve (Charlotte)
	Introduction to group theory (Eric)	Take it to the limit (one more time) (Arya)	Polytopes (2/2) (Susan)	The outer life of inner automorphisms (Steve)
	Knot invariants (Raj)	The Wythoff array (Della)	The sum-product conjecture (Neeraja)	Trail mix (Mark)
1 pm	Infinite arithmetic (Susan)	Finding a min-cut (Tanya)	Borsuk–Ulam theorem (Arya) / Logic puzzles (Misha)	Braid groups (Arya & Kevin)
	Is it possible to gamble successfully? (Tanya)	First, choose randomly (Travis)	Coxeter groups (Kayla) / Predicting the future (*Rice Neyman*)	Continued fractions (Ben)
	Bhargava's cube (Kevin) / The transcendence of many numbers (including π and e) (*Dave Savitt*) / Packing permutation patterns (Misha)		Latin squares (*Zoe Wellner*) / Neural codes (*Zoe Wellner*)	Intersections of algebraic plane curves (*Nic Ford*)
	Mathcamp crash course (Charlotte)	Introduction to graph theory (Tim!)	Linear algebra through knots (Raj) / Why do we need measure theory? (Tanya)	Quantum computing (Krishan)
	Problem solving: geometry galore (Ian)	Polytopes (1/2) (Susan)	Ultrafilters and voting (Krishan) / Non-standard analysis (Krishan)	{Game, graph} theory against the world (Ania)