

Mathcamp 2020 Week 5 Schedule

| Time | Room | Monday | Tuesday | Wednesday | Thursday | Friday |
|-------------|--------------|--|--|--|--|---|
| Before 9:10 | Kitchen deck | “Breakfast” | | | | |
| 9:10–10:00 | Arch | Assembly (Assembly Hall) | How to glue donuts $\mathcal{J}\mathcal{J}$ (Apurva) | Exploring the Catalan numbers $\mathcal{J}\mathcal{J}$ (Mark) | Counting, involutions, etc. $\mathcal{J}\mathcal{J}$ (Mark) | |
| | Canyonland | | The Sylow theorems $\mathcal{J}\mathcal{J}\mathcal{J}$ (Mia) | Dirac delta function $\mathcal{J}\mathcal{J}$ (Alan) | | |
| | Douglas | | <i>(continued from Monday 12:10)</i> Complex analysis $\mathcal{J}\mathcal{J}\mathcal{J}$ (Alan) | How Riemann <i>finally</i> understood the logarithms $\mathcal{J}\mathcal{J}$ (Apurva) | | |
| | Georgia | | <i>(continued from Monday 12:10)</i> Continued fraction expansions and e $\mathcal{J}\mathcal{J}\mathcal{J}$ (Susan) | Skolem’s paradox $\mathcal{J}\mathcal{J}\mathcal{J}$ (Susan) | | |
| 10:10–11:00 | Subalpine | Which things are the rationals? $\mathcal{J}\mathcal{J}\mathcal{J}$ (Ben) | | Cantor’s leaky tent $\mathcal{J}\mathcal{J}\mathcal{J}$ (Ben) | | |
| | Oxbow | The matrix exponential and Jordan normal form $\mathcal{J}\mathcal{J} \rightarrow \mathcal{J}\mathcal{J}\mathcal{J}\mathcal{J}$ (Dennis) | | Homotopy colimits $\mathcal{J}\mathcal{J}\mathcal{J}\mathcal{J}$ (Dennis) | | |
| | Rhode Island | The Riemann zeta function $\mathcal{J}\mathcal{J}\mathcal{J}$ (Mark) | | Block designs $\mathcal{J}\mathcal{J}$ (Emily) | | |
| | Ngo | Infinitesimal calculus $\mathcal{J}\mathcal{J}\mathcal{J}$ (Tim!) | | Crossing numbers $\mathcal{J}\mathcal{J}\mathcal{J}$ (Yuval) | | |
| 11:00–12:10 | Kitchen deck | “Lunch” | | | | |
| 12:10–1:00 | Arch | King chicken theorems \mathcal{J} (Marisa) | Perceptron $\mathcal{J}\mathcal{J}$ (Linus) | Early TAU | A tour of Hensel’s world $\mathcal{J}\mathcal{J}\mathcal{J}$ (Mark) | Perfect numbers \mathcal{J} (Mark) |
| | Union | Finding the center $\mathcal{J}\mathcal{J}\mathcal{J}$ (Pesto) | Random walks and electric networks $\mathcal{J}\mathcal{J}\mathcal{J}$ (Misha) | | How to ask questions \mathcal{J} (Eric) | Superstitious basketball player $\mathcal{J}\mathcal{J}$ (Tim!) |
| | Douglas | Complex analysis <i>(continues Tuesday 9:10)</i> | Stirling’s formula $\mathcal{J}\mathcal{J}$ (Neeraja) | | Computing trig functions by hand $\mathcal{J}\mathcal{J}$ (Misha) | Complex dynamics $\mathcal{J}\mathcal{J}$ (Neeraja) |
| | Georgia | Continued fractions and e <i>(continues Tuesday 9:10)</i> | Voting theory 101 \mathcal{J} (Pesto) | | Many Counterexamples $\mathcal{J}\mathcal{J}\mathcal{J}\mathcal{J}$ (Staff) | Extreme extremal graph theory $\mathcal{J}\mathcal{J}\mathcal{J}$ (Mia) |
| 1:10–2:00 | Subalpine | The Hilbert cube $\mathcal{J}\mathcal{J}\mathcal{J}\mathcal{J}$ (<i>Harini</i>) | Dominant eigenvalues $\mathcal{J}\mathcal{J}\mathcal{J}$ (<i>Yuyuan</i>) | Team Problem Solving | Ancient Greek calculus $\mathcal{J}\mathcal{J}$ (Yuval) | Project fair setup |
| | Oxbow | Introduction to Coxeter groups $\mathcal{J}\mathcal{J}$ (Kayla) | Posets and the Möbius function $\mathcal{J}\mathcal{J}$ (Kayla) | | Introduction to combinatorial topology $\mathcal{J}\mathcal{J}\mathcal{J}$ (Kayla) | |
| | Mint | Avoiding arithmetic triples $\mathcal{J}\mathcal{J}$ (Misha) | The lemma at the heart of my thesis $\mathcal{J}\mathcal{J}\mathcal{J}$ (Eric) | | Matrix completion $\mathcal{J}\mathcal{J}\mathcal{J}$ (Linus) | |
| | Peru | Tridiagonal symmetric matrices, the golden ratio, and Pascal’s triangle $\mathcal{J}\mathcal{J}\mathcal{J}$ (Emily) | | | The redundancy of English \mathcal{J} (Mira) | |
| 2:00–3:00 | Mathcampus | TAU | | Team Problem Solving | TAU | Project fair |
| Later | Kitchen deck | “Dinner” | | | | |

Note that Complex analysis and Continued fractions continue at 9:10 on Tuesday and Wednesday!