COURSES OFFERED IN 2023-24

CS = Computer Science

B or C = undergraduate courses

Bespoke Maths = pure MFoCS courses

Section A  
**Schedule I**

Algebraic Topology - C Prof Andre Henqriques MT

Algebraic Number Theory – B Prof Ben Green HT

Analytic Number Theory - C Prof James Maynard HT

Analytic Topology - C Prof Rolf Suabedissen MT

Category Theory - C Prof Dan Ciubotaru MT

Commutative Algebra - B Prof Damian Rössler HT

Differentiable Manifolds - C Prof Dominic Joyce MT

Godel Incompleteness - C Prof Robin Knight HT

Introduction to Representation Theory - B Prof Konstantin Ardakov MT

Lambda Calculus and Types (CS) Prof Bartek Klin HT

Lie Algebras - B Prof Kevin McGerty MT

Lie Groups - C Jason Lotay MT

Model Theory - C Prof Jochen Koenigsmann MT

Topology and Groups - B Prof Andras Juhasz MT

**Schedule II**

Algebraic Geometry - C Prof Damien Rossler MT

Axiomatic Set Theory - C Dr Robin Knight HT

Geometric Group Theory - C Prof Cornelia Drutu HT

Homological Algebra - C Dr Kobi Kremnitzer MT

Infinite Groups - C Prof Cornelia Drutu MT

Introduction to Schemes - C Mura Yakerson HT

Low Dimensional Topology - C Prof. Andras Juhasz HT

Non-Commutative Rings - C Prof Nikolay Nikolov HT

Representation Theory of Semisimple Lie Algebra – C Dr Andre Henriques HT

Topological Groups (bespoke Maths) Prof Tom Sanders TT

Section B  
**Schedule I**

Categories, Proofs, and Processes – (CS) Prof Aleks Kissinger HT

& Dr Matty Hoban

Computational Complexity (CS) Prof Rahul Santhanum HT

Graph Theory - B Prof. Paul Balister MT

Information Theory - B Prof Sam Cohen MT

Integer Programming - B Prof Raphael Hauser MT

Introduction to Quantum Information - C Prof Artur Ekert HT

Quantum Processes and Computation (CS) Prof Aleks Kissinger MT

**Schedule II**

Additive Combinatorics - C Prof Ben Green MT

Algorithmic foundations of collective decision Prof Edith Elkind HT

making

Applied Category Theory \*(bespoke Maths) Dr Paolo Perrone TT

Combinatorics - C Dr Gal Kronenberg MT

Computational Algebraic Topology - C Prof Vidit Nanda HT

Computational Game Theory (CS) Prof Michael Wooldridge MT

Computational Learning Theory (CS) Dr Varun Kanade MT

Classical and quantum compositional Prof Bob Coecke HT

distributional meaning \*(bespoke maths))

Distributed processes, types, and Prof Nobuko Yoshida MT

programming (CS)

Elliptic Curves - C Dr James Newton HT

Networks - C Prof Peter Grindrod MT

Probabilistic Combinatorics - C Prof Oliver Riordan HT

Quantum Software (CS) Prof Aleks Kissinger HT

\*These courses are offered as directed reading courses, with syllabuses provided as in the case of lecture courses. There may be one or two more reading courses to be added later.

WE REGRET THAT DUE TO TIMETABLING RESTRICTIONS THERE WILL BE A NUMBER OF CLASHES BETWEEN LECTURE COURSES. PLEASE CHECK THE LECTURE TIMETABLE CARE­FULLY.