

MATHEMATICAL SCIENCES

DIVISION OF MATHEMATICAL AND PHYSICAL LIFE SCIENCES

Lecture List for Trinity Term 2024

There may be late changes and amendments to this Lecture List. For an up-to-date version, please check the Mathematical Institute Website: <https://www.maths.ox.ac.uk/members/students/lecture-lists>

This version updated **20 March 2024**

Events shown on this list are generally one hour long unless stated otherwise.

| <i>Subject</i> | <i>Lecturer</i> | <i>Time*</i> | <i>Place</i> |
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| GRADUATE SEMINARS | | | |
| Algebra Seminar | Prof. Dan Ciubotaru | Tu. 2 | L5, Mathematical Institute |
| Algebraic Geometry Seminar | Prof. Frances Kirwan | Tu. 3:30–5 | C6, Mathematical Institute (Week 1 in L5) |
| Applied Topology Seminar | | F.3 | L5, Mathematical Institute |
| Combinatorics Seminar | Prof. Alex Scott | T. 2-3:30 | L4, Mathematical Institute |
| Computational Mathematics and Applications | Prof. Patrick Farrell, Prof. Yuji Nakatsukasa, Prof. Mike Giles | Th. 2 | L3, Mathematical Institute (Week 3 in L4) |
| Fridays@4 | | F. 4 | L1, Mathematical Institute |
| Functional Analysis | Prof. Stuart White | Tu. 4 | C2, Mathematical Institute |
| Geometric Group Theory | Prof. Dawid Kielak | Tu. 3 | L6, Mathematical Institute (Week 5 in L5) |
| Geometry and Analysis | Prof Dominic Joyce | M. 2–3.30 | L4, Mathematical Institute |
| Industrial and Applied Mathematics | | Th. 12 | L3, Mathematical Institute |
| Junior Algebra & Representation Theory seminar | Jonas Antor, Mick Gielen | F. 12 | N3.12, Mathematical Institute |
| Junior Combinatorics seminar | Jane Tan, Freddie Illingworth | F. 1-2:30 | C5, Mathematical Institute |
| Junior Geometry Seminar | George Cooper, Andres Ibanez Nunez, Gilles Englebert | Th. 3 (even weeks) | L4, Mathematical Institute |
| Junior Topology and Group Seminar | Adele Jackson | W. 4 | L6, Mathematical Institute |
| Logic | Prof. Jonathan Pila, Prof Ehud. Hrushovski, Prof. Jochen Koenigsmann | Th. 5 | L3, Mathematical Institute (Week 5 in L2) |
| Machine Learning and Data Science Seminar | Dr Paz Fink Shustin | M. 2 | L3, Mathematical Institute |
| Mathematical and Computational Biology | Prof. Philip Maini, Dr Peter Minary | F. 2 | L3, Mathematical Institute (Week 1 in L2, Week 8 in L5) |
| Mathematical and Computational Finance Seminar | Prof. Rama Cont and Dr Anran Hu | Th. 4 | L4, Mathematical Institute |
| Mathematical Geoscience | Prof Ian Hewitt | F. 2 (even weeks) | L4, Mathematical Institute (Week 8 in L6) |
| Networks Seminar | Erik Hormann | Tu. 2 | C4, Mathematical Institute |
| Nonlinear PDE | Prof. Gui-Qiang Chen | Th. 3:15–5:45 | C5, Mathematical Institute |
| Number Theory | Aleksander Horawa and Lasse Grimmelt | Th. 4 | L5, Mathematical Institute |

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| Numerical Analysis Internal Seminar | Prof. Patrick Farrell, Prof. Yuji Nakatsukasa, Dr Charles Parker | Tu. 2 | L3, Mathematical Institute (Week 5 in L1) |
| Partial Differential Equations Seminar | Prof. Andrea Modino and Prof. José Carrillo | M. 4.30 | L4, Mathematical Institute |
| OxPDE lunchtime seminar | Dr Antonio Esposito and Alessandro Cucinotta | Th. 12 | L5, Mathematical Institute |
| Probability | Prof. Christina Goldschmidt | M. 2 | L5, Mathematical Institute |
| Quantum Field Theory/Relativity/Amplitudes | Prof. Lionel Mason and Prof. Chris Beem | F. 12–1:30 | L3, Mathematical Institute (Week 8 in L5) |
| Random Matrix Theory Seminar | Prof Jon Keating | Tu. 4 | L6, Mathematical Institute (Week 5 in L5) |
| Stochastic Analysis Internal Seminar | Prof. Massimiliano Gubinelli | Tu. 11 | L5, Mathematical Institute |
| Stochastic Analysis and Mathematical Finance Seminar | Prof. Rama Cont and Prof. Massimiliano Gubinelli | M. 3:30 | L3, Mathematical Institute |
| String Theory | | Tu. 1 | L2, Mathematical Institute |
| Topology Seminar | Prof. André Henriques and Prof. Panos Papazoglou | M. 3:30-5 | L5, Mathematical Institute |
| Wolfson Centre for Mathematical Biology Journal Club | Prof. Philip Maini | M. 12 | L4, Mathematical Institute |
| GRADUATE WORKSHOPS | | | |
| WORKSHOPS | | | |
| Industrial and Interdisciplinary Workshops | Prof. Chris Beward and Yixuan Sun | F. 9.45-11.15 | L6, Mathematical Institute |
| ADVANCED CLASSES | | | |
| Logic | Prof Ehud Hrushovski | Th. 11 | C3, Mathematical Institute |
| Topology | Prof André Henriques and Dr. Lukas Brantner | M. 11-12:30 | C3, Mathematical Institute |
| GRADUATE LECTURES | | | |
| Recent Breakthroughs in Ramsey Theory | Dr Antonio Girao and Dr Marius Tiba | Th. 1-2:30 (Weeks 2-5) F. 1-2:30 (Weeks 2-5) | C4, Mathematical Institute |
| Combinatorics | Prof. Michael Krivelevich | F. 1:15-2:45 (Weeks 6-9) | C1, Mathematical Institute |
| TAUGHT COURSE CENTRE | | | |
| <p>The Taught Course Centre is a collaboration between the Mathematics Departments at the Universities of Bath, Bristol, Imperial, Oxford and Warwick. It aims to offer approximately 25 graduate level courses over the academic year. Access grid technology will be used so that audiences in all five universities can participate in the lectures. Graduate students should register in advance in order to attend the lectures. For more information about the Taught Course Centre, and for their lecture timetable, please see the website at https://www.maths.ox.ac.uk/groups/tcc</p> | | | |
| M.Sc. in MATHEMATICAL AND COMPUTATIONAL FINANCE | | | |
| M.Sc in MATHEMATICAL AND THEORETICAL PHYSICS | | | |
| Collisional Plasma Physics | Prof Sarah Newton | M. 9-11 | Department of Physics, Fisher Room |
| Collisionless Plasma Physics | Prof Alex Schekochihin | M. 5 (Weeks 1-3) W. 5 (Weeks 1-4) | Department of Physics, Lindemann |

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| | | F. 5 (Weeks 1, 2, 4) | |
| Conformal Field Theory | Dr Romain Ruzzi | Tu. 3-5 (Weeks 2-3) [L5] W. 3-5 (Weeks 2-4) [L5] Th. 3-5 (Weeks 2-4) [L3] | Mathematical Institute, L3/L5 |
| Galactic and Planetary Dynamics | Prof John Magorrian | W. 4 (Weeks 1-6) Th. 2-4 (Weeks 1-6) | Department of Physics, Fisher Room |
| Quantum Field Theory in Curved Space | Dr Pieter Bomans | M. 9-11 (Weeks 1-4) [L5] F. 3-5 (Weeks 1-4) [L4] | Mathematical Institute, L4/L5 |
| Quantum Matter II | Prof Fabian Essler | M. 11-1 (Weeks 1-5) Tu. 2-4 (Weeks 1-5) | Department of Physics, Fisher Room |
| String Theory II | Prof Xenia de la Ossa | Tu. 9-11 (Weeks 1-4) W. 9-11 (Weeks 1-4) | Mathematical Institute, L3 |
| Renormalisation Group | Prof Fernando Alday | Th. 9-11 (Weeks 1-4) F. 9-11 (Weeks 1-4) | Mathematical Institute, L4 |
| The Standard Model and Beyond | Prof Fabrizio Caola and Prof John March-Russell | Tu. 11-1 (Weeks 5-8) Th. 11-1 (Weeks 5-8) Rest TBC | Department of Physics, Fisher Room |
| M.Sc in MATHEMATICAL SCIENCES | | | |
| The lectures below for MATHEMATICS Part C/OMMS all apply. | | | |
| M.Sc in MATHEMATICS AND THE FOUNDATIONS OF COMPUTER SCIENCE | | | |
| Section A: Mathematical Foundations | | | |
| Schedule I | | | |
| No lectures. | | | |
| Schedule II | | | |
| Topological Groups | Prof. Tom Sanders | M. 10 Tu. 10 | Mathematical Institute, C4 |
| Section B: Applicable Theories | | | |
| Schedule I | | | |
| No lectures. | | | |
| Schedule II | | | |
| Applied Category Theory | Dr Carmen Constantin | F. 10 | Mathematical Institute, L5 |
| MATHEMATICS | | | |
| Prelims | | | |
| I: Groups and Group Actions | Prof Nikolay Nikolov | Tu. 10 (Weeks 1-4) W. 10 (Weeks 1-4) | Mathematical Institute, L1 |
| II: Analysis III: Integration | Prof Marc Lackenby | W. 9 (Weeks 1-4) F. 10 (Weeks 1-4) | Mathematical Institute, L1 |
| III: Statistics and Data Analysis | Prof Christl Donnelly | M. 9 (Weeks 1-4) M. 11 (Week 4 only) Tu. 9 (Weeks 1-3) Th. 10 (Weeks 1-4) F. 9 (Weeks 1-4) | Mathematical Institute, L1 |

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| IV: Constructive Mathematics | Prof Patrick Farrell | Tu. 10 (Weeks 1-4) Th. 9 (Weeks 1-4) | Mathematical Institute, L1 |
| Fridays@2 | Various | F. 2 (weeks TBD) | Mathematical Institute, L1 |
| Part A | | | |
| Number Theory | Prof Kobi Kremnitzer | M. 12 (Weeks 1-3) Tu. 12 (Weeks 1-3) Th. 12 (Weeks 1-3) | Mathematical Institute, L2 |
| Group Theory | Prof Emmanuel Breuillard | Tu. 11 (Weeks 1-2) W. 11 (Weeks 1-3) Th. 10 (Weeks 1-3) | Mathematical Institute, L2 |
| Projective Geometry | Dr Lucas Mason-Brown | M. 2 (Weeks 2-3) W. 2 (Weeks 2-3) Th. 2 (Weeks 2-3) Th. 4 (Week 1) F. 3 (Week 1) | Mathematical Institute, L2 |
| Multidimensional Analysis and Geometry | Prof Kevin McGerty | Tu. 9 (Weeks 1-3) W. 9 (Weeks 1-3) F. 12 (Weeks 1-2) | Mathematical Institute, L2 |
| Calculus of Variations | Prof Paul Dellar | Tu. 10 (Weeks 1-3) W. 10 (Weeks 1-3) F. 10 (Weeks 1-2) | Mathematical Institute, L2 |
| Graph Theory | Dr Richard Earl | M. 9 (Weeks 1-3) W. 12 (Weeks 1-3) F. 9 (Weeks 1-2) | Mathematical Institute, L2 |
| Special Relativity | Prof Qian Wang | M. 11 (Weeks 2-3) Th. 11 (Weeks 1-3) F. 11 (Weeks 1-3) | Mathematical Institute, L2 |
| Mathematical Modelling in Biology | Prof Philip Maini | M. 10 (Weeks 1-3) [L2] Tu. 2 (Weeks 1-3) [L1] Th. 9 (Weeks 1-2) [L2] | Mathematical Institute, L1/L2 |
| Fridays@2 | Various | F. 2 (weeks TBD) | Mathematical Institute, L1 |
| Part B | | | |
| Fridays@2 | Various | F. 2 (weeks TBD) | Mathematical Institute, L1 |
| Part C / OMMS | | | |
| Fridays@2 | Various | F. 2 (weeks TBD) | Mathematical Institute, L1 |
| COMPUTER SCIENCE | | | |
| Prelims | | | |
| Digital Systems | Dr Mark Van Der Wilk | W. 9 (Weeks 1-4) F. 9 (Weeks 3-4) | Department of Computer Science, Lecture Theatre A |
| Introduction to Proof Systems | Prof. Christoph Haase | M. 11 (Weeks 1-4) Tu. 11 (Weeks 1-4) F. 11 (Weeks 1-4) | Department of Computer Science, Lecture Theatre A |
| Part A | | | |
| No lectures. | | | |
| Part B | | | |
| No lectures. | | | |
| Part C | | | |

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| No lectures. | | | |
| MATHEMATICS AND COMPUTER SCIENCE | | | |
| Prelims | | | |
| Introduction to Proof Systems | Prof. Christoph Haase | M. 11 (Weeks 1-4) Tu. 11 (Weeks 1-4) F. 11 (Weeks 1-4) | Department of Computer Science, Lecture Theatre A |
| I: Groups and Group Actions | Prof Nikolay Nikolov | Tu. 10 (Weeks 1-4) W. 10 (Weeks 1-4) | Mathematical Institute, L1 |
| II: Analysis III: Integration | Prof Marc Lackenby | W. 9 (Weeks 1-4) F. 10 (Weeks 1-4) | Mathematical Institute, L1 |
| Part A | | | |
| No lectures. | | | |
| Part B | | | |
| No lectures. | | | |
| Part C | | | |
| No lectures. | | | |
| MATHEMATICS AND PHILOSOPHY | | | |
| Prelims | | | |
| Mathematics: | | | |
| I: Groups and Group Actions | Prof Nikolay Nikolov | Tu. 10 (Weeks 1-4) W. 10 (Weeks 1-4) | Mathematical Institute, L1 |
| II: Analysis III: Integration | Prof Marc Lackenby | W. 9 (Weeks 1-4) F. 10 (Weeks 1-4) | Mathematical Institute, L1 |
| Philosophy: | | | |
| Frege | Prof. James Studd | TBC | TBC |
| Part A Mathematics: | | | |
| The short option lectures above for MATHEMATICS Part A all apply. | | | |
| Part B | | | |
| Mathematics: No lectures. See MATHEMATICS above for further details. | | | |
| Philosophy: For further Philosophy lectures, please consult the Philosophy lecture list. | | | |
| Part C | | | |
| Mathematics: No lectures. See MATHEMATICS above for further details. | | | |
| Philosophy: For further Philosophy lectures, please consult the Philosophy lecture list. | | | |
| MATHEMATICS AND STATISTICS | | | |
| Prelims | | | |
| The lectures above for MATHEMATICS Prelims all apply. | | | |
| Part A | | | |

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| The lectures above for MATHEMATICS Part A all apply. |
| Part B |
| No lectures. See MATHEMATICS above for further details. |
| Part C |
| No lectures. See MATHEMATICS above for further details. |

FOOTNOTE REFERENCES

* Lectures begin on the first day possible after the beginning of Full Term (**Sunday, 21 April**), unless otherwise stated in this column. Events take place every Week of Full Term (Weeks 1–8) unless otherwise stated.