MATHEMATICAL SCIENCES
DIVISION OF MATHEMATICAL AND PHYSICAL LIFE SCIENCES
Lecture List for Trinity Term 2023

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 **25 April 2023**

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

Subject	Lecturer	Time*	Place
GRADUATE SEMINARS			
Algebra Seminar	Prof. Dan Ciubotaru	Tu. 2	L6, Mathematical Institute
Algebraic Geometry Seminar	Prof. Frances Kirwan	Tu. 3:30–5	C6, Mathematical Institute
Applied Topology Seminar		F.3	L5, Mathematical Institute
Combinatorics Seminar	Prof. Alex Scott	T. 2-3:30	L5, Mathematical Institute
Computational Mathematics and Applications	Prof. Patrick Farrell, Prof. Yuji Nakatsukasa, Prof. Nick Trefethen	Th. 2	L3, Mathematical Institute (Weeks 6-8 in L4)
Fridays@4		F. 4	L1, Mathematical Institute
Functional Analysis	Prof. Stuart White	Tu. 4 Tu. 4:30 (Week 0) Tu. 2 (Week 4 only)	C1, Mathematical Institute (Week 5 in C2, Weeks 6-8 in C3)
Geometric Group Theory	Prof. Dawid Kielak	Tu. 3	L3, Mathematical Institute (Week 7 in L4)
Geometry and Analysis	Prof Frances Kirwan and Prof. Guillem Cazassus	M. 2–3.30	L4, Mathematical Institute (Week 5 in L3)
Industrial and Applied Mathematics		Th. 12	L1, Mathematical Institute (Week 7 in L5)
Junior Algebra & Representation Theory seminar	James Taylor, Rhiannon Savage	F. 11:45-1	N3.12, Mathematical Institute
Junior Combinatorics seminar	Jane Tan, Freddie Illingworth	Th. 3	S1.37, Mathematical Institute
Junior Geometry Seminar	George Cooper, Andres Ibanez Nunez, Gilles Englebert	Th. 3 (even weeks)	L6, 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 (Weeks 1, 6, 7, 8 in L4)
Mathematical and Computational Biology	Prof. Philip Maini, Dr Peter Minary	F. 2	L3, Mathematical Institute (Weeks 6-8 in L5)
Mathematical and Computational Finance Seminar	Prof. Rama Cont and Dr Anran Hu	Weeks 2, 3, 4, 8 Th. 4	L6, Mathematical Institute (Week 8 in L4)
Mathematical Geoscience	Prof Ian Hewitt	F. 2 (even weeks)	L4, Mathematical Institute
Networks Seminar	Erik Hormann	Tu. 2	C6, Mathematical Institute
Nonlinear PDE	Prof. Gui-Qiang Chen	Th. 3:15–5:45	C6, Mathematical Institute
Number Theory	Aleksander Horawa and Lasse Grimmelt	Th. 4	L5, Mathematical Institute

Numerical Analysis Internal Seminar	Prof. Patrick Farrell, Prof. Yuji Nakatsukasa, Prof. Nick Trefethen	Tu. 2 (even weeks)	L3, Mathematical Institute
Oxford Data Science Seminar	Prof. Melanie Weber	M. 2	L6, Mathematical Institute
Partial Differential Equations Seminar	Prof. Luc Nguyen, Prof. Andrea Modino, Prof. Qian Wang	M. 4.30	L4, Mathematical Institute (Week 5 in L6)
OxPDE lunchtime seminar	Dr Ben Fehrman and Eliana Fausti	Th. 12	L4, Mathematical Institute
Probability	Prof. Christina Goldschmidt	M. 2 (Weeks 1, 4, 5, 7, 8) W. 11 (Weeks 2, 3, 6)	L5, Mathematical Institute (Week 2 in L3, Weeks 3 & 6 in L4)
Quantum Field Theory	Prof. Chris Beem	Tu. 12–1:30 (even weeks)	L3, Mathematical Institute
Random Matrix Theory Seminar	Prof Jon Keating	Tu. 4	L6, Mathematical Institute
Stochastic Analysis Internal Seminar	Prof. Massimiliano Gubinelli	No Week 6 session Tu. 11 W. 11 (Week 1 only)	L3, Mathematical Institute
Stochastic Analysis and Mathematical Finance Seminar	Prof. Rama Cont and Prof. Massimiliano Gubinelli	No Weeks 2 and 3 sessions M. 3.30 Tu. 11 (Week 6 only)	L1, Mathematical Institute (Weeks 3, 7 and 8 in L3)
String Theory		M. 12:45-2	L1, Mathematical Institute (Week 7 in L2)
Topology Seminar	Prof. André Henriques and Prof. Panos Papazoglou	M. 3:30	L5, Mathematical Institute
Wolfson Centre for Mathematical Biology Journal Club	Prof. Philip Maini	M. 12	L6, Mathematical Institute

GRADUATE WORKSHOPS

WORKSHOPS

Industrial and Interdisciplinary Workshops	Prof. Chris Breward and Yixuan Sun	F. 10	L6, Mathematical Institute (Weeks 7-8 in L5)

ADVANCED CLASSES

Geometric Group Theory	Prof. Dawid Kielak	Tu. 3	L3, Mathematical Institute (Week 7 in L4)
Logic	Prof Ehud Hrushovski	Th. 11	C6, Mathematical Institute
Topology	Prof André Henriques and Dr. Lukas Brantner	M. 11-12:30 (Week 6 in C1, Week 8 11-12)	C6, Mathematical Institute (Week 5 in C4)

GRADUATE LECTURES

GIT and Moment Maps for Nonreductive Group Actions	Prof. Frances Kirwan	Weeks 1-5 Tu. 11 W. 11 Th. 11	L5, Mathematical Institute
Topics on Linear Groups	Prof. Emmanuel Breuillard	Th. 2-4	L5, Mathematical Institute (Week 2 in C1)

TAUGHT COURSE CENTRE

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

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, 5) Th. 5 (Weeks 1, 3, 4, 5) F. 5 (Weeks 3, 4, 5)	Department of Physics, Lindemann
Conformal Field Theory	Prof. Christoph Uhlemann	(weeks 1-4) M. 4-6 (L6) (Week 4 only) Tu. 4:30-6:30 (except Week 4) Th. 3-5	Mathematical Institute, L4/L6
String Theory II	Prof. Sakura Schafer-Nameki	W. 9-11 (Weeks 2-4) Th. 9-11 (Weeks 2, 4) F. 9-11 (Weeks 2-4)	Mathematical Institute, L3
Symbolic, Numerical and Graphical Scientific Computing	Philip Candelas	W. 2-4 (L5) F. 2-4 (L6)	Mathematical Institute, L5/L6
The Standard Model and Beyond	Prof. Fabrizio Caola and Prof. John March-Russell	M. 2-5 (Week 1 only) Rest TBC Th. 9-11 (Weeks 1-2) F. 11-1 (Weeks 2-6, Seminar room 501)	Department of Physics, Fisher Room/Seminar room 501
Quantum Matter	Prof. F. Essler	M. 11-1 Tu. 2-4	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

Schedule II

Topological Groups	Prof. Tom Sanders	Tu. 10-11 (Weeks 1-6 in L6, Weeks 7-8 in L5) Th. 10-11 (Weeks 1-6 in L6, Week 8 in L5) F. 11 (Week 7 in C5)	L5/L6/C5, Mathematical Institute

Section B: Applicable Theories

Schedule I

Concurrency	Prof. Bill Roscoe	Weeks 1-4 M. 11 Tu. 11 W. 11 F. 11	Department of Computer Science, Lecture Room A

Schedule II

Applied Category Theory	C Constantine	Th. 2 (Week 8 in C1) F. 10 (Weeks 2-4, 7-8 in C1, Weeks 5-6 in C2)	C1/C2, Mathematical Institute
Cryptography	C Petit and S Jacque	Even weeks W. 2-4 (Weeks 2, 4, 8 in C1, Week 6 in C3)	C1/C3, Mathematical Institute
MATHEMATICS			
Prelims			
I: Groups and Group Actions	Prof Nikolay Nikolov	M. 9 (Weeks 3-4) Th. 10 (Weeks 1-3) F. 9 (Weeks 1, 2, 4)	Mathematical Institute, L1
II: Analysis III: Integration	Prof. Prof Marc Lackenby	M. 9 (Weeks 1-2) W. 9 (Weeks 1-4) Th. 10 (Week 4) F. 9 (Week 3)	Mathematical Institute, L1
III: Statistics and Data Analysis	Prof Christl Donnelly	Weeks 1–4 M. 10 Tu. 10 W. 10 F. 10	Mathematical Institute, L1
IV: Constructive Mathematics	Prof Patrick Farrell	Weeks 1–4 Tu. 9 Th. 9	Mathematical Institute, L1
Fridays@2	Various	F.2 (weeks TBD)	Mathematical Institute, L1
Part A			
Number Theory	Prof Kobi Kremnitzer	M. 11 (Weeks 1-3) Tu. 12 (Weeks 1-2) Th. 11 (Weeks 1-3)	Mathematical Institute, L2
Group Theory	Prof Andrew Dancer	M. 12 (Weeks 1-2) Tu. 9 (Weeks 1-3) Th. (Weeks 1-3)	Mathematical Institute, L2
Projective Geometry	Prof. Balazs Szendroi	M. 9 (Weeks 1-3) Tu. 11 (Weeks 1-2) W. 9 (Weeks 1-3)	Mathematical Institute, L2
Multidimensional Analysis and Geometry	Prof. Kevin McGerty	M. 2 (Weeks 1-3) W. 11 (Weeks 1-3) Th. 12 (Weeks 1-2)	Mathematical Institute, L2
Calculus of Variations	Prof. James Maynard	M. 10 (Weeks 1-3) W. 10 (Weeks 1-3) F. 11 (Weeks 1-2)	Mathematical Institute, L2
Graph Theory	Prof Marc Lackenby	Tu. 10 (Weeks 1-3) Th. (Weeks 1-3) F. 10 (Weeks 1-2)	Mathematical Institute, L2
Special Relativity	Prof Qian Wang	W. 12 (Weeks 2-3) Thu. 2 (Weeks 1-3) F. 12 (Weeks 1-3)	Mathematical Institute, L2
Mathematical Modelling in Biology	Prof Philip Maini	Tu. 2 (Weeks 1-3) W. 2 (Weeks 1-3) F. 9 (Weeks 1-2)	Mathematical Institute, 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. Michael Spivey	Tu. 10-12 (Week 2) Tu. 10 (Weeks 3-4) Th. 10 (Weeks 1-4)	Department of Computer Science, LTB
Imperative Programming III	Prof. Andrzej Murawski	M. 11 (Weeks 2-5) Th. 11 (Weeks 1-4) F. 11 (Weeks 1-4)	Department of Computer Science, LTB
Introduction to Formal Proof	Prof. Edith Elkind	W. 12 (Weeks 1-4) F. 12 (Weeks 2-4) F. 2 (Week 1)	Department of Computer Science, LTB

Part A			
The COMPUTER SCIENCE Schedule S1 options below all apply			

Part B			

Schedule S1			
Concurrency	Prof. Bill Roscoe	M. 11 (Weeks 1-4) Tu. 11 (Weeks 1-4) W. 11 (Weeks 1-4) F. 11 (Weeks 1-4)	Department of Computer Science, LTA

Part C			

Schedule C1			
Requirements	Dr. Jun Zhao	Week 4 M. 9:30-5 Tu. 9:30-5 W. 9:30-5 Th. 9:30-5 F. 9:30-5	Department of Computer Science, Tony Hoare RHB

MATHEMATICS AND COMPUTER SCIENCE			

Prelims			
Imperative Programming III	Prof. Andrzej Murawski	M. 11 (Weeks 2-5) Th. 11 (Weeks 1-4) F. 11 (Weeks 1-4)	Department of Computer Science, LTB
I: Groups and Group Actions	Prof Nikolay Nikolov	M. 9 (Weeks 3-4) Th. 10 (Weeks 1-3) F. 9 (Weeks 1, 2, 4)	Mathematical Institute, L1
II: Analysis III: Integration	Prof. Prof Marc Lackenby	M. 9 (Weeks 1-2) W. 9 (Weeks 1-4) Th. 10 (Week 4) F. 9 (Week 3)	Mathematical Institute, L1

Part A			
See Part A MATHEMATICS lectures above and the Schedule S1(M&CS) lectures below			

Part B			

Schedule S1(M&CS)			
Concurrency	Prof. Bill Roscoe	M. 11 (Weeks 1-4) Tu. 11 (Weeks 1-4) W. 11 (Weeks 1-4) F. 11 (Weeks 1-4)	Department of Computer Science, LTA

Part C			
The COMPUTER SCIENCE Part C Schedule C1 options all apply.			

MATHEMATICS AND PHILOSOPHY			
Prelims			
Mathematics:			
I: Groups and Group Actions	Prof Nikolay Nikolov	M. 9 (Weeks 3-4) Th. 10 (Weeks 1-3) F. 9 (Weeks 1, 2, 4)	Mathematical Institute, L1
II: Analysis III: Integration	Prof. Prof Marc Lackenby	M. 9 (Weeks 1-2) W. 9 (Weeks 1-4) Th. 10 (Week 4) F. 9 (Week 3)	Mathematical Institute, L1
Philosophy:			
Frege	Prof. James Studd	(Weeks 1-4) M. 12 T. 12	Department of Philosophy, Rad. Hum. Lecture Room
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			
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, 23 April),** unless otherwise stated in this column. Events take place every Week of Full Term (Weeks 1–8) unless otherwise stated.