

MATHEMATICAL SCIENCES

DIVISION OF MATHEMATICAL AND PHYSICAL SCIENCES

Lecture List for Trinity Term 2016

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 2 June 2016

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>
GRADUATE SEMINARS			
Algebra Seminar	Prof. Kevin McGerty, Prof. Nikolay Nikolov and Prof. Martin Bridson	T.2.15-3.30 (week 1-5,7-8) W.3. (week 6)	Mathematical Institute, L4 (weeks 1-5,7), L6, (week 6) L3 (week 8)
Algebraic and Symplectic Geometry	Prof. Dominic Joyce and Prof. Balazs Szendroi	T.3:45-5	Mathematical Institute, L4 (week 1-7, L3 (week 8)
Analytic Topology in Mathematics and Computer Science	Prof. Samson Abramsky, Dr Peter Collins, Dr Robin Knight, Prof. Hilary Priestley, Prof. Bill Roscoe and Dr Rolf Suabedissen	W.4-5:30	Mathematical Institute, C2
Applied Dynamical Systems and Inverse Problems	Prof. Irene Moroz	T.11-12:30	Mathematical Institute, C5
Arithmetic Geometry Seminar	Prof. Francis Brown	F.11	Mathematical Institute, C2
Combinatorial Theory	Prof. Colin McDiarmid and Prof. Alex Scott	T.2:30-3:45 T.4:30-6	Mathematical Institute, L6 (weeks 1-4, 6-8), L3 (week 5)
Computational Mathematics and Applications	Prof. Nick Trefethen and Dr Tyrone Rees (RAL)	Th.2	Mathematical Institute, L5 (week 3-7), L3 (week 1-2, 8)
Cryptography Seminar	Dr Ali El Kaafarani	W.3 (T.3 week 8)	Mathematical Institute, L4 (weeks 1-7), L5 (week 8)
Department of Computer Science Seminar	Prof. Georg Gottlob	T.4:30	Department of Computer Science
Functional Analysis	Prof. Charles Batty	T.5-6:30	Mathematical Institute, C1
Geometry and Analysis	Prof. Nigel Hitchin	M.2.15-3:30	Mathematical Institute, L4 (weeks 1-7), L3 (week 8)
Geophysical and Non-linear Fluid Dynamics	Prof. Peter Read and Prof. Irene Moroz	T.2:15	Atmospheric Physics
Homological Theory	Prof. Kobi Kremnitzer	W.10-12	Mathematical Institute, L4 (weeks 1-7), L3 (week 8)
Industrial and Applied Mathematics	Prof. Mason Porter	Th.4-5.30	Mathematical Institute, L3 (weeks 1-6,8), L1 (week 7)
Junior Algebra and Representation Theory	Mr Kieran Calvert	F.10 (even weeks)	Mathematical Institute, N3.12
Junior Applied Mathematics	Mr Mark Gilbert	T.12.45-2:00 (even weeks)	Mathematical Institute, C5
Junior Analytic Topology	Mr Robert Leek	Th. 1.30-3.00	Mathematical Institute, C5
Junior Geometry and Topology Seminar	Mr Alejandro Betancourt De La Parra	Th.4-5:30	Mathematical Institute, C5
Junior Logic	Mr Philip Dittmann	T.2. (week 1) T.2.30 (week 2-8)	Mathematical Institute, C5 (week 1), C6 (week 2-5, 7), C4 (week 6, 8)
Junior Number Theory	Prof. Roger Heath-Brown	M.4-6	Mathematical Institute, C3
Junior Topology and Group Theory	Mr Alex Margolis	W.4-5:30	Mathematical Institute, C1
Kinderseminar	Mr Robert Kropholler	W.11-12.30	Mathematical Institute, N3.12 (weeks 1, 3-8), S2.37 (week 2)
Logic	Prof. Jochen Koenigsmann	Th.5.30 (except week 3 when there will be a joint seminar with Number Theory)	Mathematical Institute, L6

Mathematical Behavioural Finance		W.3	Oxford-Man Institute
Mathematical and Computational Biology	Prof. Philip Maini, Prof. Ruth Baker, Prof. Eamonn Gaffney, Dr Peter Minary and Dr David Gavaghan	F.2	Mathematical Institute, L1 (week 1 and 4), L3 (weeks 2-3, 5-8)
Mathematical Finance Internal Seminar	Prof. Samuel Cohen	F.1	Mathematical Institute, L6 (week 1-7), L3 (week 8)
Mathematical Finance Nomura	Prof. Xunyu Zhou	Th.4-5.30	Mathematical Institute, L4 (weeks 1-7), L5 (week 8)
Mathematical Geoscience	Prof. Andrew Fowler & Prof. Ian Hewitt	F.2-3.30 (even weeks)	Mathematical Institute, C3
Networks Journal Club	Prof. Mason Porter	Th.12-1.30	Mathematical Institute, C5
Nonlinear PDE	Prof. Gui-Qiang Chen	Th.4-6	Mathematical Institute, C1
Number Theory	Prof. Roger Heath-Brown	Th.4	Mathematical Institute, L6
Numerical Analysis Internal Seminar	Prof. Nick Trefethen	T.2	Mathematical Institute, L3 (week 1-2), L5 (weeks 3-8)
Oxford Advanced Seminar on Informatic Structures	Dr Mehrnoosh Sadrzadeh	F.2	Department of Computer Science
Partial Differential Equations Seminar	Prof. Luc Nguyen	M.4	Mathematical Institute, L4 (weeks 1-7), L5 (week 8)
PDE CDT lunchtime seminar	Dr Angkana Ruland	Th.12	Mathematical Institute, L6
Poincare Seminar	Prof. Martin Bridson and Prof. Marc Lackenby	M.12.30-2:00	Mathematical Institute, C2
Probability Workshops	Prof. Alison Etheridge	M.12-1.30	Mathematical Institute, L4 (weeks 1-7), L3 (week 8)
Quantum Field Theory/Relativity	Dr Keith Hannabuss and Dr Florence Tsou	T.12-1:30	Mathematical Institute, L4 (weeks 1-7), L3 (week 8)
Representation Theory	Prof. Kobi Kremnizer & Prof. Kevin McGerty	Th.2-4	Mathematical Institute, L4 (weeks 1-7), L6 (week 8)
Solid and Liquid Crystals	Prof. Sir John Ball	T.11-1	Mathematical Institute, C1 (weeks 1-7), L5 (week 8)
Statistics Applied Probability and Operational Research	Prof. Yee Whye Teh	Th.2:15	Department of Statistics
Statistics Graduate Seminar	Prof. Geoff Nicholls	Th.3.45(weeks 1 and 3-6)	Department of Statistics
Statistics Graduate Student Presentations	Prof. Geoff Nicholls	Th.3 (week 7)	Department of Statistics
Stochastic Analysis	Prof Terry. Lyons	M. 2.15-3.30	Mathematical Institute, L3 (week 1-2), L5 (weeks 3-8)
Stochastic Differential Games Reading Seminar	Prof. Samuel Cohen	Time t.b.c on a weekly basis	Mathematical Institute
String Theory	Prof. Philip Candelas and Prof. Xenia de la Ossa	M.12-2	Mathematical Institute, L3 (week 1-2), L5 (weeks 3-8)
String Theory Discussion Seminar	Prof. Xenia de la Ossa	W.12-1:30	Mathematical Institute, L4 (weeks 1-7), L3 (week 8)
Topology Seminar	Prof. Cornelia Drutu, Prof. Andras Juhasz, Prof Ulrike Tillmann	M.3:30-5	Mathematical Institute, L6 (week 1-4, 6-8), L5 (week 5)
Wolfson Centre for Mathematical Biology Journal Club	Prof. Philip Maini	M.12-1:30 (weeks 1,4 and 8)	Mathematical Institute, L6
GRADUATE WORKSHOPS			
WORKSHOPS			
Industrial and Interdisciplinary Workshops	Prof. Chris Breward	F.10-1	Mathematical Institute, L4 (week 1-7), L5 (week 8)
ADVANCED CLASSES			

Algebra	Prof. Nikolay Nikolov	T.3–4.30	Mathematical Institute, C5 (weeks 1-7), C6 (week 8)
Logic	Prof. Boris Zilber	Th.11–12:30	Mathematical Institute, C3 (weeks 1-7), C6 (week 8)
Representation Theory	Dr Lisa Lamberti	Th.10	Mathematical Institute, C5 (week 1-7), C6 (week 8)
Topology	Prof. Ulrike Tillmann	M.10-12	Mathematical Institute, L6 (week 1-4, 6-8), L5 (week 5)
GRADUATE LECTURES			
Calabi-Yau threefolds and sheaf counting	Prof Balazs Szendroi	T.11-1 (weeks 3-4, 6-7)	Mathematical Institute, L6
Introduction to Rough Paths	Dr Danyu Yang and Dr Hao Ni	T. F. 10	Mathematical Institute, C2
Machine Learning	Prof. Tery Lyons	W.4-6	Oxford-Man Institute
Non-Riemannian Geometry	Prof Nigel Hitchin	T. 10 [C5] F. 10 [C3] (weeks 1-2, 4-8)	Mathematical Institute, C3, C5
Polynomial Methods in Combinatorics	Dr Yufei Zhao	T.10-11.30 (10-11 in week 8)	Mathematical Institute, C3 (week 1), C4 (week 2-8)
Resurgence in Geometry and Physics	Dr Brent Pym	Th. 10-12	Mathematical Institute, C1 (weeks 1-7) C5 (week 8)
TQFT in homotopy theory	Prof Ulrike Tillmann	F.12 (weeks 2, 4-8)	Mathematical Institute, N3.12
Topics in Additive Combinatorics	Prof. Ben Green	W.10-11.30 (week 1-2, 7-8)	Mathematical Institute, C4 (week 1-2), C5 (week 7-8)
Zilber-Pink Problems	Prof. Jonathan Pila	W. 1.30-3 (weeks 1-4)	Mathematical Institute, 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 http://tcc.maths.ox.ac.uk/			
EPSRC CDT in INDUSTRIALLY FOCUSED MATHEMATICAL MODELLING			
No lectures.			
EPSRC CDT in PARTIAL DIFFERENTIAL EQUATIONS			
Analysis of PDEs	Prof. Gui-Qiang Chen & Prof. Qian Wang	W. 2-4	Mathematical Institute, C2 (weeks 1-7) C5 (week 8)
Calderon-Zygmund Singular Integrals and Applications	Prof Joaquim Bruna	W. 11-1	Mathematical Institute, L6
M.Sc. MATHEMATICAL AND COMPUTATIONAL FINANCE			
Quantitative Risk Management	Various	T– F, 9-5 (week 0)	Mathematical Institute, L5
Financial Computing with C++	Prof Dmitry Kramkov	Lectures & Practical Sessions M-F, 9-12 (week 10)	Mathematical Institute, L6
		Help Sessions M-F, 1.30-3.30 (week 10)	Mathematical Institute, L6
	Prof Dmitry Kramkov	Help Sessions M-Th. 1.30-3.30 (week 11)	Mathematical Institute, VC1
Julen Rotaetxe	Help Sessions M-Th. 9-12 (week 11)		
Financial Computing with C++ Part II Exam		F. 9-12 (week 11)	Ewert House

M.Sc IN MATHEMATICAL AND THEORETICAL PHYSICS			
Conformal Field Theory	Prof. Fernando Alday	W.F. 2-4 (weeks 1-4)	Mathematical Institute, L6
Introduction to Gauge String Duality	Prof. Andrei Starinets	T.W.9	Department of Physics, Fisher Room
Complex Systems	Prof. Mason Porter	M.2-4 (weeks 1-3, 5-8) F.10-12 (week 8)	Mathematical Institute, C4
String Theory II	Prof. Philip Candelas	M.9-11 (weeks 1-4) [C1] Th.9-11 (weeks 1-4) [C2]	Mathematical Institute, C1, C2
The Standard Model	Dr Juan Rojo	T.W.10	Department of Physics, Fisher Room
Topics in Quantum Condensed Matter Physics	Prof. John Chalker	W.10	Department of Physics, DWB Seminar Room
Beyond the Standard Model	Prof. John March-Russell	T.W.11	Department of Physics, Fisher Room
Collisional Plasma Physics	Prof. Felix Parra-Diaz	M.11-1	Department of Physics, Fisher Room
Non-perturbative Methods in Quantum Field Theory	Prof. Mike Teper	M.11, T.2	Department of Physics, DWB Seminar Room
Stellar Astrophysics	Prof. Philipp Podsiadlowski	M.Th.9	Department of Physics, Fisher Room
High Energy Astrophysics	Dr Garret Cotter	M.Th.9	Department of Physics, Fisher Room
Astroparticle Physics	Prof. Subir Sarkar	M.Th.10	Department of Physics, Fisher Room
Quantum Field Theory in Curved Space-Time	Dr Christopher Eling	T.12, F.9	Department of Physics, Fisher Room
Critical Phenomena	Prof. Paul Fendley	Th.2-4	Department of Physics, Fisher Room
Topics in Soft and Active Matter Physics	Prof. Julia Yeomans		
M.Sc IN MATHEMATICAL MODELLING AND SCIENTIFIC COMPUTING			
<i>SPECIAL TOPICS</i>			
C++ for Scientific Computing	Dr Joe Pitt-Francis	M-F, all day (week 1 only)	Department of Computer Science
Numerical Analysis of SDEs and SPDEs	Prof Mike Giles	T. 11 C2 (weeks 2-5, 7) L3 (week 8) Th. 11 C2 (weeks 2-5, 7) L6 (week 8)	Mathematical Institute, C2, L3, L6
Python in Scientific Computing	Dr Patrick Farrell	M-F, all day (week 2 only)	Mathematical Institute, L5
Numerical Solution of Navier-Stokes Equations	Prof Ian Sobey	T..Th.9 (weeks 2-7)	Mathematical Institute, C1
Solving PDEs on Super-computers	Dr Patrick Farrell	M-F, all day (week 6 only)	Mathematical Institute, C6
M.Sc IN MATHEMATICS AND THE FOUNDATIONS OF COMPUTER SCIENCE			

Section A: Mathematical Foundations			
<i>Schedule I</i>			
<i>Schedule II</i>			
Section B: Applicable Theories			
<i>Schedule I</i>			
<i>Schedule II</i>			
MATHEMATICS			
Prelims			
I: Groups and Group Actions	Dr Vicky Neale	M.10 W.10 (weeks 1–4)	Mathematical Institute, L1
II: Analysis III: Integration	Prof. Yves Capdeboscq	T.10 F.10 (weeks 1-4)	Mathematical Institute, L1
III: Statistics and Data Analysis	Dr Neil Laws and Prof. Jonathan Marchini	M.9 W.9 Th.10 F.9 (weeks 1-4)	Mathematical Institute, L1
IV: Constructive Mathematics	Prof. Andy Wathen	T.9 Th.9 (weeks 1-4)	Mathematical Institute, L1
Prelims Preparation Lecture	Dr Richard Earl	F.11 (week 4 only)	Mathematical Institute, L1
Part A			
Number Theory	Dr Jennifer Balakrishnan	M.2 W.12 (weeks 1-3) T.2 (weeks 1-2)	Mathematical Institute, L2
Group Theory	Dr Richard Earl	M.12 F.2 (weeks 1-3) Th.10 (weeks 1 and 3)	Mathematical Institute, L2
Projective Geometry	Prof. Andrew Dancer	W.10 F.11 (weeks 1-3) Th.9 (weeks 1-2)	Mathematical Institute, L2
Introduction to Manifolds	Prof. Andrew Dancer	M.10 Th.2 (weeks 1-3) [L2] T.12 (week 1-2) [L1]	Mathematical Institute, L1, L2
Calculus of Variations	Prof. Philip Maini	M.9 F.9 (weeks 1-3) T.9 (weeks 1-2)	Mathematical Institute, L2
Graph Theory	Prof. Peter Keevash	M.11 W.11 (weeks 1-3) [L2] T.11 (week 1-2) [L1]	Mathematical Institute, L1, L2
Special Relativity	Prof. Lionel Mason	W.9 (weeks 1-3) F.12 (weeks 1-3) [L1 in week 1] Th.12 (weeks 1-2)	Mathematical Institute, L2
Modelling in Mathematical Biology	Prof. Ruth Baker	T.10 F.10 (weeks 1-3) Th.11 (weeks 1-2)	Mathematical Institute, L2
Finals Forum	Dr Richard Earl	F.3 (week 2 only)	Mathematical Institute, L2
Part B			
No lectures			
Finals Forum	Dr Richard Earl	F.3 (week 2 only)	Mathematical Institute, L2

Part C			
No lectures			
COMPUTER SCIENCE			
Prelims			
Imperative Programming II	Dr Martin Brain		Department of Computer Science
Digital Systems	Dr Hanno Nickau		Department of Computer Science
Introduction to Formal Proof	Prof. Bernard Sufrin		Department of Computer Science
MATHEMATICS AND COMPUTER SCIENCE			
Prelims			
Imperative Programming II	Dr Martin Brain		Department of Computer Science
I: Groups and Group Actions	Dr Vicky Neale	M.10 W.10 (weeks 1–4)	Mathematical Institute, L1
II: Analysis III: Integration	Prof. Yves Capdeboscq	T.10 F.10 (weeks 1-4)	Mathematical Institute, L1
COMPUTER SCIENCE			
Part A			
Computer Architecture	Prof. Alex Rogers		Department of Computer Science
Computer Networks	Prof. Geraint Jones		Department of Computer Science
MATHEMATICS & COMPUTER SCIENCE			
Part A			
The short option lectures above for MATHEMATICS Part A all apply.			
COMPUTER SCIENCE, MATHEMATICS & COMPUTER SCIENCE			
Part B			
Computer Architecture	Prof. Alex Rogers		Department of Computer Science
Computer Networks	Prof. Geraint Jones		Department of Computer Science
Part C			
Requirements	Dr Helena Webb		Department of Computer Science
MATHEMATICS AND PHILOSOPHY			
Prelims			
Mathematics:			
I: Groups and Group Actions	Dr Vicky Neale	M.10 W.10 (weeks 1–4)	Mathematical Institute, L1

II: Analysis III: Integration	Prof. Yves Capdeboscq	T.10 F.10 (weeks 1-4)	Mathematical Institute, L1
[Papers I and II are compulsory papers for Prelims in Mathematics and Philosophy.]			
Philosophy:			
Frege	Dr Steven Methven	T.12 (weeks 1-6)	
Part A Mathematics:			
The short option lectures above for MATHEMATICS Part A all apply.			
Part B Mathematics			
Finals Forum	Dr Richard Earl	F.3 (week 2 only)	Mathematical Institute, L2
Part B Philosophy:			
[For further Philosophy lectures, please consult the Philosophy lecture list]			
Part C Mathematics: Logic			
No lectures. [See Philosophy list for Philosophy subjects which may be offered.]			
MATHEMATICS AND STATISTICS			
Prelims			
The lectures above for MATHEMATICS Prelims all apply.			
Part A			
The short options lectures above for MATHEMATICS Part A all apply.			
Part B			
No lectures			
Part C			
No lectures			

FOOTNOTE REFERENCES

- * Lectures begin on the first day possible after the beginning of Full Term (Sunday, 24 April), unless otherwise stated in this column. Events take place every Week of Full Term (Weeks 1–8) unless otherwise stated.