

# MATHEMATICAL SCIENCES

## DIVISION OF MATHEMATICAL AND PHYSICAL SCIENCES

### Lecture List for Trinity Term 2011

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

This version updated 13 May 2011

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>
<b>GRADUATE SEMINARS</b>			
Algebra Seminar	Prof. M J Collins, Prof. Rouquier and Prof. D Segal	T.5	Mathematical Institute, L2
Algebraic and Symplectic Geometry	Prof. Joyce and Dr Szendroi	T.3:45	Mathematical Institute, L3
Analytic Topology in Mathematics and Computer Science	Prof. Abramsky, Dr P J Collins, Dr Knight, Prof. Priestley, Prof. Roscoe and Dr Suabedissen	W.4-5:30	Mathematical Institute, L3
Applied Dynamical Systems and Inverse Problems	Dr Moroz	T.11-12:30	Mathematical Institute, DHSR3
Aspects of Mathematical Foundations of Physics	Prof. Zilber and Dr Doering	F.4	Mathematical Institute, L3
Combinatorial Theory	Prof. McDiarmid and Prof. Scott	T.2:30-3:45[L3] T.4:30[SGSR1]	Mathematical Institute, L3, SGSR1
Computational Mathematics and Applications	Prof. Trefethen and Dr Dollar (RAL)	Th.2	Mathematical Institute, Ground Floor Seminar Room, Gibson Building
Computing Laboratory Seminar	Prof. Gottlob	T.4:30	Computing Laboratory
Differential Equations and Applications	Prof. Howison, Prof. J Ockendon and Prof. Chapman	Th.4	Mathematical Institute, DHSR1
Functional Analysis	Prof. Batty	T.5	Mathematical Institute, L3
Geometry and Analysis	Prof. Hitchin	M.2:15	Mathematical Institute, L3
Geophysical and Non-linear fluid dynamics	Prof. Read and Dr Moroz	T.2:15	Atmospheric Physics
Junior Applied Mathematics	Ms Cominetti	T.1 (even weeks)	Mathematical Institute, DHSR1
Junior Geometric Group Theory	Mr Hume	W.4	Mathematical Institute, SGSR1
Junior Geometry and Topology Seminar	Miss Buzano	F.12-1	Mathematical Institute, SGSR1(weeks 1-7), L3 (week 8)
Junior Logic	Mr W Anscombe	T.2	Mathematical Institute, T14

Junior Number Theory	Prof. Heath-Brown	M.4	Mathematical Institute, SGSR1
Logic	Dr Koenigsmann	Th.5	Mathematical Institute, L3
Mathematical Behavioural Finance	Prof. Zhou	W.3	Oxford-Man Institute of Quantitative Finance, Eagle House, Walton Well Road.
Mathematical Biology	Prof. Maini, Dr Baker and Dr Gaffney	F.2	Mathematical Institute, L2
Mathematical Finance Internal Seminar	Prof. Zhou	Th.1	Mathematical Institute, DHSR1
Mathematical Finance Nomura	Prof. Zhou	F.2:15	Mathematical Institute, DHSR1
Mathematical Genetics and Bioinformatics	Dr Myers	T.4:30	Oxford Centre for Gene Function, Seminar Room
Mathematical Geoscience	Dr Ellis & Dr Peppin	F.2:30 (even weeks)	Mathematical Institute, DHSR3
Number Theory	Prof. Heath-Brown	Th.4	Mathematical Institute, L3
Oxford Advanced Seminar on Informatic Structures	Dr Sadrzadeh	F.2	Computing Laboratory
Partial Differential Equations	Dr Capdeboscq	M.5	Gibson Building Seminar Room
Quantum Field Theory/Relativity	Dr Hannabuss and Dr Tsou	T.12	Mathematical Institute, L3
Representation Theory	Dr Erdmann, Dr Henke, Dr Kremnizer and Dr McGerty	Th.2:30	Mathematical Institute, L3
Set Theory Reading Group	Mr Lupton	W.2-3:30	Mathematical Institute, L3
Statistics Applied Probability and Operational Research	Dr Steinsaltz	Th.2:15 (weeks 1.3.4.5.6)	Statistics Department
Statistics General Seminar	Dr Steinsaltz	Th.2:15 (weeks 2 & 8)	Statistics Department
Statistics Graduate Seminar	Dr Meinshuasen and Prof. Sir David Cox	Th.3:45(weeks 1.3.4.5.6)	Statistics Department
Statistics Graduate Student Presentations	Dr Meinshausen	Th.2:15 (week 7)	Statistics Department
Stochastic Analysis	Prof. Lyons	M.2:15-3:45, 3:45-5:00	Oxford-Man Institute of Quantitative Finance, Eagle House, Walton Well Road
String Theory	Prof. Candelas and Dr de la Ossa	M.12	Mathematical Institute, L3
String Theory Discussion Seminar	Dr de la Ossa	W.12	RII.28
Topology	Prof. Tillmann and Prof. Lackenby	M.3:45	Mathematical Institute, L3
<b>WORKSHOPS</b>			
Industrial and Interdisciplinary Workshops	Dr Gower and Dr Breward	F.9-2	Mathematical Institute, DHSR1 (weeks 1-8) DHSR3 (week 9)

<b>GRADUATE WORKSHOPS</b>			
Stochastic Analysis	Prof. Lyons	T.11-1	Oxford-Man Institute of Quantitative Finance, Eagle House, Walton Well Road.
<b>ADVANCED CLASSES</b>			
Logic	Prof. Zilber	Th.11	Mathematical Institute, L3
Topics in Molecular Mechanics	Dr Ortner	W.3-5	Gibson Building First Floor Seminar Room
Topology	Prof. Tillmann	M.11	Mathematical Institute SGSR1
<b>GRADUATE LECTURES</b>			
4-manifolds	Dr Torres	T.Th.10	Mathematical Institute, L3
Extremal Graph Theory	Prof. Scott	W.11-1	Gibson Building Ground Floor Seminar Room
Quantum Invariants in Low-Dimensional Topology	Dr Douglas	T.Th.11-12.30	Mathematical Institute, SGSR1
O-minimal structures with diophantine applications	Dr Pila	W.10-12	Mathematical Institute, L3
Nonlinear Partial Differential Equations	Prof. Chen	Th.4-6	Gibson Building First Floor Seminar Room
<b>TAUGHT COURSE CENTRE</b>			
<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 <a href="http://tcc.maths.ox.ac.uk/">http://tcc.maths.ox.ac.uk/</a></p>			
<b>M.Sc. MATHEMATICAL AND COMPUTATIONAL FINANCE</b>			
Optimisation Methods in Finance	Dr Hauser	M.3, W.10 (weeks 1-5) M.3, W.3 (week 6)	Mathematical Institute, DHSR1
Time Series Analysis	Dr McSharry	M.T.W.Th.10-1 (week 6)	Mathematical Institute, DHSR1
C++ Revision	Dr Gyurko	T.B.C.	T.B.C.
Financial Computing with C++	Dr Kramkov	M.T.W.Th.F. 9-5 (weeks 9 & 10)	Mathematical Institute, T.B.C.
Stochastic Control and Dynamic Asset Allocation 2	Dr Jin	T.10 [DHSR1], F.10 [L3] (weeks 1-5) T.3 [DHSR1], F.10 [L3] (week 6)	Mathematical Institute, DHSR1, L3

<b>M.Sc IN MATHEMATICAL MODELLING AND SCIENTIFIC COMPUTING</b>			
<b><i>SPECIAL TOPICS</i></b>			
C++	Dr Pitt-Francis	T.W.Th.F. (week 1) Lectures: 10, 2 Practicals: 11-1, 3-5	Computing Laboratory
Mathematics for Simulation	Dr Farmer	T.3-5 (weeks 2-7)	Mathematical Institute, DHSR3
Meshfree Methods	Prof. Wendland	Th.10-12 (weeks 2, 3, 5-8)	Mathematical Institute, DHSR3
Numerical Solution of Navier Stokes Equations	Dr Sobey	T.F. 10 (weeks 2-7)	Mathematical Institute, DHSR3
<b>M.Sc IN COMPUTER SCIENCE</b>			
Computers in Society	Dr Harrington	T.W.2	Computing Laboratory
<b>M.Sc IN MATHEMATICS AND THE FOUNDATIONS OF COMPUTER SCIENCE</b>			
<b>Section A: Mathematical Foundations</b>			
<b><i>Schedule I</i></b>			
No lectures			
<b><i>Schedule II</i></b>			
No lectures			
<b>Section B: Applicable Theories</b>			
<b><i>Schedule I</i></b>			
No lectures			
<b><i>Schedule II</i></b>			
Random Graphs	Prof. Riordan	T.F.11	Mathematical Institute, L3
<b>MATHEMATICS</b>			
<b>Moderations</b>			
A: An Introduction to Groups, Rings and Fields	Prof. Priestley	T.F.11 (weeks 1-4)	University Museum
B: Analysis III: Integration	Dr Qian	W.11, F.12 (weeks 1-4)	University Museum
B: Geometry II	Dr Luke	M.Th.11 (weeks 1-4)	University Museum
D: Calculus in Three Dimensions and Applications	Dr Gaffney	M.T.W.Th.12 (weeks 1-4)	University Museum
Mods Preparation Lecture	Dr Earl	M.11 (week 5)	University Museum
<b>Part A</b>			
Number Theory	Prof. Tillmann	T.Th.9 (weeks 1-4)	Mathematical Institute, L1
Multivariable Calculus	Prof. Drutu	T.10, W.3 (weeks 1-4)	Mathematical Institute, L1

<b>Part B</b>			
No lectures			
<b>Part C</b>			
No lectures			
<b>COMPUTER SCIENCE</b>			
<b>Moderations</b>			
Digital Systems	Dr Jones	T.W.Th.F.10 (weeks 1–4)	Computing Laboratory
Imperative Programming II	Prof. de Moor	M.10–12, Th.11–1 (weeks 1–4)	Computing Laboratory
<b>MATHEMATICS AND COMPUTER SCIENCE</b>			
<b>Moderations</b>			
A: An Introduction to Groups, Rings and Fields	Prof. Priestley	T.F.11 (weeks 1–4)	University Museum
B: Analysis III: Integration	Dr Qian	W.11, F.12 (weeks 1–4)	University Museum
Imperative Programming II	Prof. de Moor	M.10–12, Th.11–1 (weeks 1–4)	Computing Laboratory
Mods Preparation Lecture	Dr Earl	M.11 (week 5)	University Museum
<b>COMPUTER SCIENCE</b>			
<b>Part A</b>			
Computer Architecture	Dr Kroening	M.T.11–1 (weeks 1–4)	Computing Laboratory
Computer Networks	Dr Olteanu	W.F.11–1 (weeks 1–4)	Computing Laboratory
Group Project Briefings	Prof. Jeavons	Th.12 (weeks 1–4)	Computing Laboratory
<b>MATHEMATICS &amp; COMPUTER SCIENCE</b>			
<b>Part A</b>			
[In addition, the lectures above for Mathematics Part A are applicable.]			
Computer Architecture	Dr Kroening	M.T.11–1 (weeks 1–4)	Computing Laboratory
Computer Networks	Dr Olteanu	W.F.11–1 (weeks 1–4)	Computing Laboratory
Group Project Briefings	Prof. Jeavons	T.12 (weeks 1–4)	Computing Laboratory
<b>COMPUTER SCIENCE; MATHEMATICS &amp; COMPUTER SCIENCE</b>			
<b>Part B</b>			
Computer Architecture	Dr Kroening	M.T.11–1 (weeks 1–4)	Computing Laboratory
Computer Networks	Dr Olteanu	W.F.11–1 (weeks 1–4)	Computing Laboratory
<b>Part C</b>			
No lectures			

**MATHEMATICS AND PHILOSOPHY**

**Moderations**

**Mathematics:**

A: An Introduction to Groups, Rings and Fields	Prof. Priestley	T.F.11 (weeks 1–4)	University Museum
B: Analysis III: Integration	Dr Qian	W.11, F.12 (weeks 1–4)	University Museum
B: Geometry II	Dr Luke	M.Th.11 (weeks 1–4)	University Museum
Mods Preparation Lecture	Dr Earl	M.11 (week 5)	University Museum

[Papers A and B are compulsory papers for Honour Moderations in Mathematics and Philosophy.]

**Philosophy:**

Frege: Foundations of Arithmetic	Dr Uzquiano	M.12	Faculty of Philosophy, 10 Merton Street
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**Part A Mathematics:**

Number Theory	Prof. Tillmann	T.Th.9 (weeks 1–4)	Mathematical Institute, L1
Multivariable Calculus	Prof. Drutu	T.10, W.3 (weeks 1–4)	Mathematical Institute, L1

**Part B Mathematics**

No lectures

**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**

**Moderations**

The Lectures above for MATHEMATICS Moderations all apply.

**Part A**

Linear Programming	Prof. McDiarmid	Th.F.10 (weeks 1–4)	Department of Statistics
Simulation	Dr Winkel	M.W.10 (weeks 1–4)	Department of Statistics

In addition, the lectures above for Mathematics Part A 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, 1 May), unless otherwise stated in this column.  
Events take place every Week of Full Term (Weeks 1-8) unless otherwise stated.