

## Lectures Proposed by the Board of the Faculty of Mathematics

### MATHEMATICAL TRIPOS

Lectures proposed by the Board of the Faculty of Mathematics. Graduates of the University who are not reading for any University Examination may attend without payment any lectures proposed by the Faculty Board of Mathematics.

Part IA students are recommended to attend the induction session which will be held from 9.30 a.m. to 10.45 a.m. on Wednesday 8 October 2008, in the *Cockcroft Lecture Theatre*.

A meeting will be held for all Part IA students on Friday 1 May 2009 at 2.00 p.m. in *Mill Lane Room 3* to discuss examinations and examination techniques.

Note that the non-examinable courses on **Concepts in Theoretical Physics** and **Topics in the History of Mathematics** will be of interest to all students reading the Mathematical Tripos. Full details are given below.

MICHAELMAS 2008

LENT 2009

EASTER 2009

### PART IA

Lectures for Part IA of the Mathematical Tripos will be held in the *Cockcroft Lecture Theatre* unless otherwise stated.

**Numbers and Sets**

PROF. P. T. JOHNSTONE  
M. W. F. 10

**Groups**

PROF. G. P. PATERNAIN  
M. W. F. 11

**Vectors and Matrices**

DR S. J. COWLEY  
Tu. Th. S. 10

**Differential Equations**

PROF. M. G. WORSTER  
Tu. Th. S. 11

**Introduction to Mechanics**

DR S. T. C. SIKLOS  
Tu. Th. 12 (Twelve lectures)

*The following course is non-examinable*

**Topics in the History of Mathematics: Ancients to the Renaissance**

DR P. BURSILL-HALL  
W. F. 4, Centre for Mathematical Sciences, Room 3

**Vector Calculus**

PROF. E. J. HINCH  
M. W. F. 10

**Analysis I**

PROF. A. G. THOMASON  
M. W. F. 11

**Probability**

PROF. W. T. GOWERS  
Tu. Th. S. 11

**Dynamics and Relativity**

DR S. T. C. SIKLOS  
Tu. Th. S. 12

*The following course is non-examinable*

**Topics in the History of Mathematics:  
Renaissance to the 19<sup>th</sup> Century**

DR P. BURSILL-HALL  
W. F. 4, Centre for Mathematical Sciences,  
Room 3

**Metric and Topological Spaces\***

PROF. B. J. GREEN  
M. W. F. 10, *Mill Lane Room 3* (Twelve lectures)

**Variational Principles\***

DR D. M. A. STUART  
M. W. F. 11, *Mill Lane Room 3* (Twelve lectures)

**Optimization\***

DR M. R. TEHRANCHI  
M. W. F. 12, *Mill Lane Room 3* (Twelve lectures)

**Computational Projects**

TBA  
Tu. Th. 10, *Mill Lane Room 3* (Six lectures)

*The following course is non-examinable*

**Concepts in Theoretical Physics**

DR D. TONG AND DR N. BERLOFF  
Tu. Th. 11, *Mill Lane Room 3* (Eight lectures)

\* Examined in Part IB of the Tripos

## Faculty of Mathematics (continued)

### MATHEMATICAL TRIPOS, PART IA (continued)

MICHAELMAS 2008

LENT 2009

EASTER 2009

#### **Mathematics with Physics Option:**

Students taking this third option should attend Vectors and Matrices, Groups, Differential Equations, Analysis I, Vector Calculus and Probability from Part IA of the Mathematical Tripos, together with the lectures listed below in Part IA of the Natural Sciences Tripos. They will be required to do Physics practical work, and should attend at least the first lecture of Course B of the Computing Course for Physical Scientists.

##### **Principles of Relativity, Mechanics and Fields**

DR P. J. DUFFETT-SMITH M. W. F. 9 (first nineteen lectures) *Chemical Laboratory, Lensfield Road*

##### **Electromagnetism, Oscillations and Waves**

DR G. A. JONES M. W. F. 9 (last three lectures, beginning 28 Nov.) *Chemical Laboratory, Lensfield Road*

##### **Experimental Physics**

DR D. A. GREEN Two lectures, W. 22 Oct. and W. 5 Nov. *Chemical Laboratory, Lensfield Road*

##### **Laboratory work**

DR J. M. RILEY AND OTHERS

##### **Experimental Physics**

M. or Tu. or Th. or F. 2–6

*Students attend one afternoon every fortnight*

##### **Electromagnetism, Oscillations and Waves**

DR G. A. JONES M. W. F. 9 (first sixteen lectures) *Chemical Laboratory, Lensfield Road*

##### **Quantum Mechanics and the Physics of Large Systems**

PROF. C. G. SMITH M. W. F. 9 (last eight lectures, beginning 23 Feb.) *Chemical Laboratory, Lensfield Road*

##### **Laboratory work**

DR J. M. RILEY AND OTHERS

##### **Experimental Physics**

M. or Tu. or Th. or F. 2–6

*Students attend one afternoon every fortnight*

##### **Quantum Mechanics and the Physics of Large Systems**

PROF. C. G. SMITH M. W. F. 9 (first ten lectures) *Chemical Laboratory, Lensfield Road*

##### **Revision Lectures**

DR P. J. DUFFETT-SMITH AND DR G. A. JONES Two lectures, M. 18 May and W. 20 May *Chemical Laboratory, Lensfield Road*

##### **Laboratory work**

DR J. M. RILEY AND OTHERS

##### **Experimental Physics**

M. or Tu. or Th. or F. 2–6

*Students attend one afternoon every fortnight*

Laboratory work takes place at the *Cavendish Laboratory (West Cambridge)*. All students must attend an introductory talk and register for Laboratory Work at 11.30a.m. on W. 8 October, at the *Cavendish Laboratory*. The Laboratory may be approached by the Madingley Road, or via the Coton cycle and footpath. For cyclists and pedestrians the latter is strongly recommended. Laboratory work is continuously assessed.

## MATHEMATICAL TRIPOS, PART IB

Lectures for Part IB of the Mathematical Tripos will be held in *Mill Lane Lecture Rooms, Room 3* unless otherwise stated.

##### **Analysis II**

DR P. A. RUSSELL  
M. W. F. 10

##### **Methods**

DR C. P. CAULFIELD  
M. W. F. 11

##### **Linear Algebra**

DR T. A. FISHER  
M. W. F. 12

##### **Quantum Mechanics**

PROF. N. DOREY  
Tu. Th. 10

##### **Markov Chains**

PROF. Y. M. SUHOV  
Tu. Th. 11 (Twelve lectures)

##### **Groups Rings and Modules**

PROF. J. SAXL  
M. W. F. 9

##### **Complex Analysis**

DR A. G. KOVALEV  
M. W. 10

##### **Electromagnetism**

DR N. G. BERLOFF  
M. W. F. 11 (first sixteen lectures)

##### **Special Relativity**

PROF. A. C. DAVIS  
M. W. F. 11 (last eight lectures)

##### **Complex Methods**

PROF. G. W. GIBBONS  
M. W. 12

##### **Statistics**

PROF. S. P. BROOKS  
Tu. Th. 10

##### **Geometry**

DR T. K. CARNE  
Tu. Th. 11

##### **Fluid Dynamics**

PROF. H. E. HUPPERT  
Tu. Th. 12

##### **Numerical Analysis**

PROF. A. ISERLES  
M. W. F. 9 (Twelve lectures)

##### **Metric and Topological Spaces**

PROF. B. J. GREEN  
M. W. F. 10 (Twelve lectures)

##### **Optimization**

DR M. R. TEHRANCHI  
M. W. F. 12 (Twelve lectures)

##### *The following course is non-examinable*

##### **Topics in the History of Mathematics: Ancients to the Renaissance**

DR P. BURSILL-HALL  
W. F. 4, *Centre for Mathematical Sciences, Room 3*

##### *The following course is non-examinable*

##### **Topics in the History of Mathematics: Renaissance to the 19<sup>th</sup> Century**

DR P. BURSILL-HALL  
W. F. 4, *Centre for Mathematical Sciences, Room 3*

## Faculty of Mathematics (continued)

### MATHEMATICAL TRIPPOS PART II

Lectures will be held in the Meeting Rooms (MR) of the *Centre for Mathematical Sciences*, *Clarkson Road*, unless otherwise stated.

A meeting will be held on Wednesday, 10 June 2009 for finalists who may continue to Part III of the Tripos in 2008-09. The meeting will be held in *MR2* at the *Centre for Mathematical Sciences* at 11.15 a.m.

MICHAELMAS 2008

LENT 2009

EASTER 2009

### C COURSES

**Number Theory**

PROF. J. H. COATES  
M. W. F. 10, *MR2*

**Dynamical Systems**

DR J. H. P. DAWES  
M. W. F. 11, *MR2*

**Cosmology**

PROF. E. P. S. SHELLARD  
M. W. F. 12, *MR3*

**Computational Projects**

DR S. J. COOLEY  
F. 10 Oct., 2-4 *MR2* (one lecture only)

**Coding and Cryptography**

PROF. T. W. KÖRNER  
Tu. Th. S. 9, *MR3*

**Classical Dynamics**

PROF. J. C. B. PAPALOIZOU  
Tu. Th. S. 10, *MR4*

**Geometry and Groups**

DR I. SMITH  
M. W. F. 10, *MR2*

**Further Complex Methods**

PROF. A. S. FOKAS  
M. W. F. 11, *MR2*

**Topics in Analysis**

DR N. WICKRAMASEKERA  
M. W. F. 12, *MR2*

**Mathematical Biology**

PROF. R. E. GOLDSTEIN  
Tu. Th. S. 9, *MR3*

**Statistical Modelling**

DR R. B. GRAMACY  
Tu. Th. S. 10, *MR3*

### D COURSES

**Graph Theory**

PROF. I. B. LEADER  
M. W. F. 9, *MR2*

**Fluid Dynamics**

PROF. M. R. E. PROCTOR  
M. W. F. 9, *MR4*

**Partial Differential Equations**

PROF. P. MARKOWICH  
M. W. F. 10, *MR4*

**Probability and Measure**

PROF. J. R. NORRIS  
M. W. F. 11, *MR3*

**Galois Theory**

PROF. I. GROJNOWSKI  
M. W. F. 12, *MR2*

**Principles of Statistics**

PROF. A. P. DAWID  
M. W. F. 12, *MR4*

**Electrodynamics**

PROF. M. PERRY  
Th. S. 9, *MR4*

**Riemann Surfaces**

DR C. BIRKAR  
Tu. Th. 10, *MR3*

**Principles of Quantum Mechanics**

DR J. M. EVANS  
Tu. Th. S. 11, *MR2*

**Algebraic Topology**

DR J. RASMUSSEN  
Tu. Th. S. 11, *MR3*

**Optimization and Control**

PROF. R. R. WEBER  
Tu. Th. 12, *MR4*

**Numerical Analysis**

DR A. SHADRIN  
Tu. Th. S. 12, *MR5*

**Stochastic Financial Models**

PROF. L. C. G. ROGERS  
M. W. F. 9, *MR2*

**Asymptotic Methods**

DR P. D. D'EATH  
M. W. F. 9, *MR4*

**Differential Geometry**

DR M. DAFERMOS  
M. W. F. 9, *MR5*

**Applications of Quantum Mechanics**

PROF. N. S. MANTON  
M. W. F. 10, *MR3*

**Linear Analysis**

DR B. SCHLEIN  
M. W. F. 11, *MR3*

**Applied Probability**

PROF. Y. M. SUHOV  
M. W. F. 12, *MR3*

**Waves**

PROF. T. PEDLEY  
M. W. F. 12, *MR4*

**Logic and Set Theory**

PROF. J. M. E. HYLAND  
Tu. Th. S. 9, *MR2*

**General Relativity**

DR R. M. WILLIAMS  
Tu. Th. 10, *MR2*

**Algebraic Geometry**

PROF. A. J. SCHOLL  
Tu. Th. S. 10, *MR4*

**Representation Theory**

DR S. MARTIN  
Tu. Th. S. 11, *MR2*

**Statistical Physics**

DR M. WINGATE  
Tu. Th. 11, *MR9*

**Number Fields**

PROF. N. I. SHEPHERD-BARRON  
Tu. Th. 12, *MR3*

**Integrable Systems**

DR M. DUNAJSKI  
Tu. Th. 12, *MR4*

*The following course is non-examinable*

**Topics in the History of Mathematics: Ancients to the Renaissance**

DR P. BURSILL-HALL  
W. F. 4, *Centre for Mathematical Sciences*, Room 3

**Laboratory Demonstrations in Fluid Mechanics**

DR S. B. DALZIEL  
Tu. or Th. 2, Fluids Laboratory (*four sessions, beginning 21 or 23 October*)

*The following course is non-examinable*

**Topics in the History of Mathematics:**
**Renaissance to the 19<sup>th</sup> Century**

DR P. BURSILL-HALL  
W. F. 4, *Centre for Mathematical Sciences*, Room 3

## Faculty of Mathematics (continued)

### MATHEMATICAL TRIPPOS, PART III

All lectures are held at the *Centre for Mathematical Sciences, Clarkson Road* unless otherwise stated.

There will be a meeting in *MR2* on Wednesday 8 October 2008 at 9.00 a.m. for all those who intend to offer courses in Part III.

*There is a series of meetings for Part III students in *MR2*, Centre for Mathematical Sciences, at 4.15 p.m. on the following topics:*

8 October 2008: PhD applications to Cambridge and other universities

15 October 2008: Exams and lectures

31 October 2008: How to write a Part III essay

7 November 2008: Research opportunities in Cambridge

#### MICHAELMAS 2008

#### LENT 2009

#### EASTER 2009

<b>Algebraic Topology</b> DR I. SMITH <i>M. W. F. 9, MR5</i> <b>Advanced Financial Models</b> DR M. TEHRANCHI <i>M. W. F. 9, MR9</i> <b>Approximation Theory</b> DR A. SHADRIN <i>M. W. F. 9, MR11</i> <b>Introduction to Supersymmetry</b> PROF. N. S. MANTON <i>W. F. 9, MR13</i> <b>Astrophysical Dynamics</b> DR N. W. EVANS <i>M. W. F. 9, MR14</i> <b>Fluid Dynamics of Energy</b> DR C. P. CAULFIELD AND PROF. A. W. WOODS <i>M. W. F. 9, MR15</i> <b>General Relativity</b> DR O. RINNE <i>M. W. F. 10, MR3</i> <b>Advanced Probability</b> DR P. K. FRIZ <i>M. W. F. 10, MR5</i> <b>Commutative Algebra</b> DR S. J. WADSWLEY <i>M. W. F. 10, MR9</i> <b>Quantum Information Theory</b> DR N. DATTA <i>M. W. F. 10, MR12</i> <b>Topics in Fourier Analysis</b> PROF. T. W. KÖRNER <i>M. W. F. 10, MR13</i> <b>Slow Viscous Flow</b> PROF. J. R. LISTER <i>M. W. F. 10, MR14</i> <b>Differential Geometry</b> DR J. A. ROSS <i>M. W. F. 11, MR5</i> <b>Cosmology</b> DR A CHALLINOR, PROF. A. C. DAVIS, DR H. PEIRIS <i>M. W. F. 11, MR9</i> <b>Introduction to Functional Analysis</b> DR D. J. H. GARLING <i>M. W. F. 11, MR13</i> <b>Biological Physics</b> PROF. R. GOLDSTEIN <i>M. W. F. 11, MR14</i> <b>Algebraic Geometry</b> PROF. B. J. TOTARO <i>M. W. F. 12, MR5</i> <b>Mathematics of Operational Research</b> PROF. R. R. WEBER <i>M. W. F. 12, MR9</i> <b>Statistical Field Theory and Applications</b> PROF. R. R. HORGAN AND DR M. WINGATE <i>M. W. F. 12, MR11</i> <b>Quantum Field Theory</b> PROF. A. C. DAVIS <i>Tu. Th. S. 9, MR2</i> <b>Topics in Complex Analysis</b> DR T. K. CARNE <i>Tu. Th. S. 9, MR5</i> <b>Topics in Group Theory</b> PROF. J. SAXL <i>Tu. Th. S. 9, MR14</i>	<b>The Standard Model</b> DR B. ALLANACH <i>M. W. F. 9, MR3</i> <b>Decision Problems in Group Theory</b> PROF. A. GLASS <i>M. W. F. 9, MR11</i> <b>Nonparametric Statistical Theory</b> DR R. NICKL <i>M. W. 9, MR12</i> <b>Curves and Abelian Varieties</b> PROF. N. I. SHEPHERD-BARRON <i>M. W. F. 9, MR13</i> <b>The Polar Oceans and Climate Change</b> PROF. P. WADHAMS <i>M. F. 9, MR14</i> <b>Galaxies</b> PROF. R. C. KENNICUTT <i>M. W. F. 9, MR15</i> <b>Waves in Fluids</b> PROF. N. PEAKE AND DR O. RATH-SPIVACK <i>M. W. F. 10, MR5</i> <b>String Theory</b> DR D. TONG <i>M. W. F. 10, MR9</i> <b>Elliptic Partial Differential Equations</b> DR N. WICKRAMASEKERA <i>M. W. F. 10, MR11</i> <b>Stochastic Calculus and Applications</b> DR N. BERESTYCKI <i>M. W. F. 10, MR12</i> <b>Character Theory of Finite Groups</b> DR A. EVSEEV <i>M. W. F. 10, MR13</i> <b>Physical Cosmology</b> PROF. M. PETTINI <i>M. W. F. 10, MR15</i> <b>Geophysical and Environmental Fluid Dynamics</b> DR S. B. DALZIEL <i>M. W. F. 11, MR4</i> <b>Additive Combinatorics</b> PROF. B. J. GREEN <i>M. W. F. 11, MR5</i> <b>Black Holes</b> DR H. S. REALL <i>M. W. F. 11, MR9</i> <b>Pro-p Groups</b> DR R. CAMINA <i>M. W. F. 11, MR12</i> <b>Applied Bayesian Statistics</b> PROF. D. SPIEGELHALTER <i>M. W. 11, MR14 and CATAM room (eleven lectures and five classes)</i> <b>Spectral Geometry</b> DR D. BARDEEN <i>M. W. F. 12, MR5</i> <b>Quantum Computation</b> DR A. SHORT <i>M. W. 12, MR9</i> <b>Modular Forms</b> DR D. LOEFFLER <i>M. W. F. 12, MR13</i> <b>Analysis of Operators</b> DR A. J. WASSERMANN <i>M. W. F. 12, MR14</i>	<b>Solitons and Instantons</b> DR D. M. A. STUART <i>M. Tu. Th. F. 9, MR9</i> <b>Introduction to Twistor Theory</b> MISS I. BORZYM <i>M. Tu. Th. F. 10, MR9</i> <b>Applied Statistics</b> DR B. D. M. TOM <i>Tu. Th. 10, MR12 (Four lectures and four classes)</i> <b>Supergavity</b> PROF. G. W. GIBBONS <i>M. Tu. Th. F. 11, MR9</i> <b>Quantum Cosmology</b> DR P. D'EATH <i>M. Tu. Th. F. 12, MR9</i>
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**Faculty of Mathematics (continued)****MATHEMATICAL TRIPPOS, PART III (continued)**

MICHAELMAS 2008

LENT 2009

EASTER 2009

<b>Category Theory</b> DR R. N. G. GARNER Tu. Th. S. 10, <i>MR5</i>	<b>Geological Fluid Mechanics</b> PROF. H. HUPPERT M. W. F. 12, <i>MR15</i>	
<b>Structure and Evolution of Stars</b> DR C. A. TOUT AND DR J. J. ELDREDGE Tu. Th. S. 10, <i>MR11</i>	<b>Control of Quantum</b> DR S. SCHIRMER M. W. 2, <i>MR4</i>	
<b>Statistical Theory</b> DR R. J. SAMWORTH Tu. Th. 10, <i>MR12</i>	<b>Statistics in Medical Practice++</b> PROF. S. BIRD, PROF. D. SPIEGELHALTER, PROF. V. FAREWELL W. 4–6pm, <i>MR13</i> (six hours)	
<b>Methods in Analysis</b> DR B. SCHLEIN Tu. Th. S. 10, <i>MR14</i>	<b>Advanced Cosmology</b> PROF. E. P. S. SHELLARD Tu. Th. 9, <i>MR4</i>	
<b>Combinatorics</b> PROF. I. B. LEADER Tu. Th. 11, <i>MR4</i>	<b>Numerical Solution of Differential Equations</b> PROF. A. ISERLES Tu. Th. S. 9, <i>MR5</i>	
<b>Symmetry and Particle Physics</b> PROF. H. OSBORN Tu. Th. S. 11, <i>MR9</i>	<b>Optimal Investment</b> PROF. L. C. G. ROGERS Tu. Th. 9, <i>MR9</i>	
<b>Astrophysical Fluid Dynamics</b> DR G. I. OGILVIE Tu. Th. S. 11, <i>MR11</i>	<b>4-Manifolds</b> DR J. RASMUSSEN Tu. Th. S. 9, <i>MR12</i>	
<b>Stochastic Networks</b> PROF. F. P. KELLY Tu. Th. S. 11, <i>MR12</i>	<b>Set Theory and Logic</b> DR T. E. FORSTER Tu. Th. S. 9, <i>MR13</i>	
<b>Local Fields</b> PROF. A. J. SCHOLL Tu. Th. S. 11, <i>MR14</i>	<b>Applications of Differential Geometry to Physics</b> PROF. M. J. PERRY Tu. Th. S. 10, <i>MR5</i>	
<b>Applied Statistics</b> DR S. M. PITTS Tu. Th. 12, <i>MR12</i>	<b>Stellar and Planetary Magnetic Fields</b> PROF. M. R. E. PROCTOR AND DR L. J. SILVERS Tu. Th. S. 10, <i>MR11</i>	
<b>Finite Dimensional Lie Algebras and their Representations</b> PROF. I. GROJNOWSKI Tu. Th. S. 12, <i>MR13</i>	<b>Actuarial Statistics</b> DR S. M. PITTS Tu. Th. 10, <i>MR12</i>	
<b>Perturbation and Stability Methods</b> PROF. J. M. RALLISON AND DR S. J. COWLEY Tu. Th. S. 12, <i>MR14</i>	<b>Topos Theory</b> PROF. P. T. JOHNSTONE Tu. Th. S. 10, <i>MR13</i>	
	<b>Advanced Quantum Field Theory</b> PROF. N. DOREY Tu. Th. S. 11, <i>MR3</i>	
	<b>Accretion Discs</b> PROF. J. E. PRINGLE Tu. Th. 11, <i>MR11</i>	
	<b>Survival Data++</b> DR P. TREASURE Tu. Th. 11, <i>MR12</i>	
	<b>Fluid Dynamics of Swimming Organisms</b> PROF. T. J. PEDLEY Tu. Th. 11, <i>MR13</i>	
	<b>Complex Manifolds</b> DR A. G. KOVALEV Tu. Th. S. 11, <i>MR14</i>	
	<b>Quantum Information, Entanglement and Nonlocality</b> DR A. KENT, PROF. J. BUTTERFIELD AND DR J. OPPENHEIM Tu. Th. 12, <i>MR5</i>	
	<b>Time Series+</b> DR S. M. PITTS Tu. Th. S. 12, <i>MR9</i> (first eight lectures)	
	<b>Monte Carlo Inference+</b> DR R. R. GRAMACY Tu. Th. S. 12, <i>MR9</i> (last sixteen lectures)	
	<b>Percolation and Combinatorics</b> PROF. B. BOLLOBAS Tu. Th. 12, <i>MR2</i>	
	<b>Elliptic Curves</b> DR T. A. FISHER Tu. Th. S. 12, <i>MR14</i>	
	<b>Demonstrations in Fluid Dynamics</b> DR S. B. DALZIEL Th. 2, <i>Fluids Laboratory</i>	

+ These two courses constitute the twenty-four hour course in Time Series and Monte Carlo Inference  
 ++ These two courses constitute the sixteen hour course in Biostatistics

## Faculty of Mathematics (continued)

### COURSES INTENDED FOR GRADUATES (NON-EXAMINABLE)

MICHAELMAS 2008

LENT 2009

EASTER 2009

<b>Abelian Varieties</b> DR T. DOKCHITSER Tu. Th. S. 10, <i>MR13</i>	<b>Topics in Algebraic Geometry</b> DR C. BIRKAR M. W. F. 10, <i>MR14</i>	<b>TBA</b> PROF. J. H. COATES M. W. F. 10, <i>MR5</i>
<b>Computational Methods in Fluid Mechanics</b> PROF. E. J. HINCH Tu. Th. 11, <i>MR5</i>	<b>Partial Differential Equations of Mathematical Physics</b> DR M. DAFERMOS AND PROF. I. RODNIANSKI M. W. F. 11, <i>MR11</i>	<b>Computational Complexity</b> PROF. W. T. GOWERS M. W. F. 11, <i>MR5</i>
<b>Advanced String Theory</b> DR A. SINKOVICS Th. 12, <i>MR15</i>	<b>Topics in Probability Theory</b> DR N. BERESTYCKI M. 2, <i>MR12</i> (eight lectures)	<b>Geometry and Integrable Systems</b> DR M. DUNAJSKI Tu. Th. 2, <i>MR9</i>
	<b>Clifford Algebras</b> DR D. J. H. GARLING Tu. Th. 11, <i>MR15</i>	
	<b>Computational Group Theory</b> DR R. PARKER Tu. Th. 12, <i>MR11</i>	
	<b>Topics in Theoretical Physics</b> TBA Tu. 2, <i>MR9</i>	

### M.PHIL. IN STATISTICAL SCIENCE

Lectures are held in *the Centre for Mathematical Sciences*, unless otherwise stated.

<b>Advanced Financial Models</b> DR M. TEHRANCHI M. W. F. 9, <i>MR9</i>	<b>Nonparametric Statistical Theory</b> DR R. NICKL M. W. 9, <i>MR12</i>	<b>Applied Statistics</b> DR B. D. M. TOM Tu. Th. 10, <i>MR12</i> (four lectures and four classes)
<b>Mathematics Of Operational Research</b> PROF. R. R. WEBER M. W. F. 12, <i>MR9</i>	<b>Applied Bayesian Statistics</b> PROF. D. SPIEGELHALTER M. W. 11, <i>MR14</i> and <i>CATAM room</i> (eleven lectures and five classes)	
<b>Introduction to Probability</b> DR N. BERESTYCKI Tu. Th. 9, <i>MR12</i>	<b>Statistics in Medical Practice++</b> PROF. S. BIRD, PROF. D. SPIEGELHALTER, PROF. V. FAREWELL W. 4–6pm, <i>MR13</i> (six hours)	
<b>Statistical Theory</b> DR R. J. SAMWORTH Tu. Th. 10, <i>MR12</i>	<b>Actuarial Statistics</b> DR S. M. PITTS Tu. Th. 10, <i>MR12</i>	
<b>Applied Statistics</b> DR S. M. PITTS Tu. Th. 12, <i>MR12</i>	<b>Survival Data++</b> DR P. TREASURE Tu. Th. 11, <i>MR12</i>	
	<b>Time Series+</b> DR S. M. PITTS Tu. Th. S. 12, <i>MR9</i> (first eight lectures)	
	<b>Monte Carlo Inference+</b> DR R. R. GRAMACY Tu. Th. S. 12, <i>MR9</i> (last sixteen lectures)	

+ These two courses constitute the twenty-four hour course in Time Series and Monte Carlo Inference

++ These two courses constitute the sixteen hour course in Biostatistics

### M.PHIL. IN COMPUTATIONAL BIOLOGY

Lectures are held in *the Centre for Mathematical Sciences*, unless otherwise stated.

<b>Genome Informatics</b> DR G. MICKLEM AND OTHERS M. 9–10, <i>MR12</i> , 10–11, <i>CATAM LAB</i>	<b>Systems Biology*</b> DR J. PAULSSON M. W. 2–4, <i>MR5</i>	<b>Methods and Models in Genomics</b> DR P. LIÓ W. F. 11–1, <i>MR15</i>
<b>Disease Dynamics</b> DR J. GOG AND OTHERS Tu. Th. 10, <i>MR15</i>	<b>Network Biology</b> PROF. L. WERNISCH (TBC) Tu. 10, <i>MR15</i> and F. 11, <i>MR13</i>	
<b>Functional Genomics</b> PROF. S. TAVARÉ AND OTHERS M. W. 12–2, <i>MR15</i> and <i>CATAM LAB</i>	<b>Computational Neuroscience</b> DR S. EGLEN Tu. Th. 12, <i>MR15</i>	
<b>Structural Biology</b> DR J. HUPPERT AND OTHERS W. F. 10, <i>MR15</i>	<b>Statistical Genetics</b> PROF. S. TAVARÉ AND DR V. PLAGNOL W. F. 11, <i>MR15</i>	

\* Systems Biology may be a half module (8 lectures) and the other 8 lectures would then be “Hidden Markov Models”, DR ALWYN SCALLY