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

All Part III and PhD students in the Faculty are able to self-enrol on Part III Moodle courses; they will be sent instructions on how to do so. All other members of the University wishing to access these courses are requested to complete the relevant form in the Part III Guide to Courses.

There will be a meeting on the morning of Wednesday 4 October for those intending to offer courses in Part III. Students should refer to the Notes for New Part III Students for further details.

There is a series of meetings for Part III students on Wednesdays at 4.15pm. Students are invited to refer to the Part III Handbook for more details.

For a personalised version of the timetable, which you can import into your own electronic calendar, please see http://www.timetable.cam.ac.uk.

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### Michaelmas 2023
- **General Relativity**
  - Prof. C. M. Warnick
  - M. W. F. 9, MR2

- **Advanced Probability**
  - Prof. P. Sousi
  - M. W. F. 9, MR3

- **Lie Algebras and Their Representations**
  - Prof. S. Martin
  - M. W. F. 9, MR9

- **Biological Physics and Fluid Dynamics**
  - Prof. R. Goldstein
  - M. W. F. 9, MR12

### Lent 2024
- **Algebraic Number Theory**
  - Dr H. Wiersema
  - M. W. F. 9, MR3

- **Field Theory in Cosmology**
  - Prof. E. Pajer
  - M. W. F. 9, MR4

- **Stochastic Calculus and Applications**
  - Prof. J. Miller
  - M. W. F. 9, MR5

### Easter 2024
- **Applications of Quantum Field Theory**
  - Prof. S. A. Hartnoll
  - M. Tu. Th. F. 11, MR3

- **Gravitational Waves and Numerical Relativity**
  - Prof. U Sperhake
  - M. Tu. Th. F. 12, MR3

- **Fluid Dynamics of the Solid Earth**
  - Prof. M. G. Worster
  - M. W. F. 9, MR12
Combinatorics §
Prof. B. Bollobas
M. W. F. 10, MR3 (sixteen lectures)

Algebraic Geometry
Dr D. Ranganathan
M. W. F. 10, MR5

Quantum Information, Foundations and Gravity
Prof. A. P. A. Kent
W. F. 10, MR9

Slow Viscous Flow §
Prof. J. R. Lister
M. W. F. 10, MR12

Structure and Evolution of Stars
Prof. C. A. Tout
M. W. F. 10, MR14

Quantum Field Theory
Dr A. Castro
M. W. F. 11, MR2

Algebraic Topology
Prof. I. Smith
M. W. F. 11, MR5

Approximation Theory
Dr A. Shadrin
M. W. 11, MR12

Model Theory and Non-Classical Logic
Dr J. Siqueira
M. W. F. 11, MR13

Cubulating Spaces and Groups
Dr M. Arenas
M. W. 9, MR13

Quantum Computation
Dr S. Subramanian
M. W. 9, MR14

Black Holes
Prof. H. S. Reall
M. W. F. 10, MR2

Distribution Theory and Applications
Dr A. C. L. Ashton
M. W. 10, MR5

Abelian Varieties
Prof. A. J. Scholl
M. W. F. 10, MR9

Spectral Computations in Infinite Dimensions and Applications in Data Science
Dr M. Colbrook
M. W. 10, MR11

Fluid Dynamics of the Environment
Prof. S. Dalziel, Dr R. Bhagat
M. W. F. 10, MR12

Introduction to Additive Combinatorics
Prof. J. Wolf
M. W. F. 10, MR13

Functional Data Analysis
Prof. J. Aston
M. W. 10, MR14
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<thead>
<tr>
<th>Course</th>
<th>Instructor</th>
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<tr>
<td>Astrophysical Fluid Dynamics</td>
<td>Prof. R. Rafikov</td>
<td>M. W. F. 11, MR14</td>
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<tr>
<td>Extra lecture on 26 Oct at 2pm, MR9</td>
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<tr>
<td>No lecture on 1 Nov</td>
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<tr>
<td>Cathegory Theory</td>
<td>Prof. P. T. Johnstone</td>
<td>M. W. F. 12, MR4</td>
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<tr>
<td>Elliptic Curves</td>
<td>Prof. T. Fisher</td>
<td>M. W. F. 11, MR3</td>
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<tr>
<td>Elliptic Partial Differential Equations</td>
<td>Prof. N. Wickramasekera, Dr G. Taujanskas</td>
<td>M. W. F. 11, MR4</td>
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<tr>
<td>Fluid Dynamics of Climate</td>
<td>Prof. J. R. Taylor, Dr A. Ming</td>
<td>M. W. F. 12, MR12</td>
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<tr>
<td>Modern Statistical Methods ‡</td>
<td>Dr S. Bacallado</td>
<td>M. W. F. 12, MR9</td>
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<tr>
<td>Numerical Solution of Differential Equations</td>
<td>Prof. A. Iserles</td>
<td>M. W. F. 12, MR13</td>
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<tr>
<td>Planetary System Dynamics</td>
<td>Prof. M. Wyatt</td>
<td>M. W. F. 12, MR14</td>
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<tr>
<td>Commutative Algebra</td>
<td>Dr O. Becker</td>
<td>Tu. Th. S. 9, MR3</td>
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<tr>
<td>Quantum Entanglement in Many-body Physics</td>
<td>Prof. F. Verstraete</td>
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<tr>
<td>The Life and Death of Galaxies</td>
<td>Prof. V. Belokurov</td>
<td>M. W. F. 11, MR11</td>
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<tr>
<td>Solitons, Instantons and Geometry</td>
<td>Prof. D. M. A. Stuart</td>
<td>M. W. 11, MR12</td>
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<tr>
<td>Large Cardinals</td>
<td>Prof. B. Loewe</td>
<td>M. F. 11, MR13</td>
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<tr>
<td>Advanced Quantum Field Theory</td>
<td>Dr R. A. Reid-Edwards</td>
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<tr>
<td>Course</td>
<td>Instructor</td>
<td>Schedule</td>
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<tr>
<td>Topics in Statistical Theory</td>
<td>Prof. R. Samworth</td>
<td>Tu. Th. 9, MR5</td>
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<tr>
<td>Starting 10 Oct. Additional lecture on 13 Oct, 4pm in MR5</td>
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<tr>
<td>Geometric Group Theory</td>
<td>Prof. H. Wilton</td>
<td>M. W. F. 12, MR5</td>
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<td>Functional Analysis §</td>
<td>Dr A. Zsák</td>
<td>Tu. Th. S. 9, MR13</td>
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<tr>
<td>Statistical Field Theory</td>
<td>Prof. C. E. Thomas</td>
<td>Tu. Th. 10, MR2</td>
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<tr>
<td>Causal Inference</td>
<td>Dr Q. Zhao</td>
<td>Tu. Th. 10, MR5</td>
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<td>Differential Geometry</td>
<td>Dr A. Kovalev</td>
<td>Tu. Th. S. 10, MR9</td>
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<tr>
<td>Cosmology</td>
<td>Prof. B. D. Sherwin</td>
<td>Tu. Th. S. 11, MR2</td>
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<tr>
<td>Lattice Models</td>
<td>Prof. W. Werner</td>
<td>Tu. Th. 11, MR5</td>
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<tr>
<td>Information Theory</td>
<td>Prof. I. Kontoyiannis</td>
<td>Tu. Th. 11, MR9</td>
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<tr>
<td>Statistical Learning in Practice</td>
<td>Dr R. Altmeyer</td>
<td>M. W. F. 12, MR9</td>
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<tr>
<td>Forcing and the Continuum Hypothesis</td>
<td>Dr R. Matthews</td>
<td>M. W. F. 12, MR13</td>
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<tr>
<td>Direct and Inverse Scattering of Waves</td>
<td>Dr O. Rath Spivack</td>
<td>M. W. 12, MR14</td>
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<tr>
<td>The Standard Model</td>
<td>Prof. D. Tong</td>
<td>Tu. Th. S. 9, MR3</td>
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<tr>
<td>Introduction to Computational Complexity</td>
<td>Prof. W. T. Gowers</td>
<td>Tu. Th. 9, MR5</td>
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<tr>
<td>Topics in Convex Optimisation</td>
<td>Prof. H. Fawzi</td>
<td>Tu. Th. 9, MR9</td>
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<tr>
<td>Hydrodynamic Stability</td>
<td>Prof. R. R. Kerswell</td>
<td>Tu. Th. 9, MR12</td>
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Analysis of Partial Differential Equations
Dr Z. Wyatt
Tu. Th. 11, MR13

Symmetries, Fields and Particles
Prof. M. Wingate
Tu. Th. 12, MR2

Ramsey Theory on Graphs
Dr J. Sahasrabudhe
Tu. Th. 12, MR4

Local Fields
Dr R. Zhou
Tu. Th. 12, MR5
Starting 7 Oct

Statistics in Medical Practice +
Dr C. Jackson and colleagues
Tu. Th. 12, MR11 (twelve lectures)
First lecture on 17 Oct, no lectures on 9 Nov or 28 Nov

Perturbation Methods
Prof. D. Abrahams
Tu. Th. 12, MR12
Extra lecture on Sat 21 October, 12pm, MR12
No lecture on Th 26 October

Schramm-Loewner Evolutions
Dr Y. Yuan
Tu. Th. 9, MR13

Toric Varieties
Dr R. Picciotto
Tu. Th. 9, MR14

Symplectic Topology
Dr A. Ward
Tu. Th. 10, MR4

Robust Statistics
Prof. P-L. Loh
Tu. Th. 10, MR5

Supersymmetry
Prof. B. Allanach
Tu. Th. 10, MR9

Astrophysical Black Holes
Dr D. Sijacki
Tu. Th. 10, MR12

Theoretical Physics of Soft Condensed Matter
Prof. M. E. Cates
Tu. Th. 10, MR13

Group Cohomology
Dr C. J. B. Brookes
Tu. Th. 11, MR5
Topological Quantum Matter  
Prof. B. Béri  
Tu. Th. 11, MR9

Dynamics of Astrophysical Discs  
Prof. H. Latter  
Tu. Th. 11, MR12

Analysis of Survival Data +  
Dr P. Treasure  
Tu. Th. 11, MR13

String Theory  
Prof D. B. Skinner  
Tu. Th. S. 12, MR2

Concentration Inequalities  
Dr V. Jog  
Tu. Th. 12, MR3

Stochastic Processes in Biology  
Dr M. Bruna  
Tu. Th. 12, MR12

Laboratory Demonstrations in Fluid Dynamics  
Prof. S. Dalziel  
W. 2-3:30, Fluids Laboratory

+ These two courses constitute the 24-lecture course in Statistics in Medicine. For examination purposes, Statistics in Medicine is considered a Lent term course.

‡ Recordings for this course will only be made available as a reasonable adjustment for students with a recommendation for access to recordings.

§ There will be no recordings available for this course; the lecturer will make alternative accommodations for students with recommendations for reasonable adjustments that include access to recordings.