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 5 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.

**MICHAELMAS 2022**
- General Relativity
  - Prof. C. M. Warnick
  - M. W. F. 9, MR2
- Introduction to Non-Linear Analysis
  - Prof. P. Raphael
  - M. W. F. 9, MR4
- Biological Physics and Fluid Dynamics
  - Prof. R. Goldstein
  - M. W. F. 9, MR12

**LENT 2023**
- String Theory
  - Prof D. B. Skinner
  - M. W. F. 9, MR2
- Stochastic Calculus and Applications
  - Prof. J. Miller
  - M. W. F. 9, MR5
- Algebraic Number Theory
  - Dr H. Wiersema
  - M. W. F. 9, MR9

**EASTER 2023**
- Gauge/Gravity Duality
  - Dr A. C. Wall
  - M. Tu. Th. F. 10, MR3
- Applications of Quantum Field Theory
  - Prof. S. A. Hartnoll
  - M. Tu. Th. F. 11, MR3
- Non-Newtonian Fluid Mechanics
  - Prof. E. Lauga
  - M. W. 9, MR12
  - Additional Lecture Fri 10 Feb 9am, MR12
Cosmology
Prof. B. D. Sherwin
M. W. F. 10, MR2

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

Advanced Probability
Prof. P. Sousi
M. W. F. 10, MR9

Dynamics of Astrophysical Discs
Prof. G. I. Ogilvie
M. W. 9, MR13

Black Holes
Prof. J. E. Santos
M. W. F. 10, MR3

Elliptic Curves ‡
Prof. T. A. Fisher
M. W. F. 10, MR4

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

Advanced Financial Models
Prof. M. R. Tehranchi
M. W. F. 10, MR13

Unbounded Operators and Semigroups
Prof. D. M. A. Stuart
M. W. 10, MR12

Bayesian Modelling and Computation
Dr S. Bacallado
M. W. F. 10, MR13

Representation Theory of Symmetric Groups
Dr S. Law
M. W. F. 10, MR13

Statistical Learning in Practice
Dr R. Altmeyer
M. W. F. 11, MR4 12+12

Combinatorics ‡
Prof. B. Bollobas
M. W. F. 11, MR3 (sixteen lectures)

Astrophysical Fluid Dynamics
Prof. R. Rafikov
M. W. F. 11, MR12

Abelian Varieties
Prof. A. J. Scholl
M. W. 11, MR5
<table>
<thead>
<tr>
<th>Course</th>
<th>Instructor</th>
<th>Time and Location</th>
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<tbody>
<tr>
<td>Quantum Computation</td>
<td>Dr S. Strelchuk</td>
<td>M. W. F. 11, MR13</td>
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<tr>
<td>Solitons, Instantons and Geometry ‡</td>
<td>Prof. M. Dunajski</td>
<td>M. W. 11, MR9</td>
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<td></td>
<td>Additional lecture on Fri 3 March, 11am, MR9</td>
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<tr>
<td></td>
<td>No lecture on 8 March</td>
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<tr>
<td>Numerical Solution of Differential Equations</td>
<td>Prof. A. Iserles</td>
<td>M. W. F. 12, MR4</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>Modular Forms</td>
<td>Prof. J. Thorne</td>
<td>M. W. F. 12, MR5</td>
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<tr>
<td>Field Theory in Cosmology</td>
<td>Prof. E. Pajer</td>
<td>M. W. F. 11, MR12</td>
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<tr>
<td>Modern Statistical Methods</td>
<td>Prof. R. Shah</td>
<td>M. W. F. 12, MR9</td>
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<tr>
<td>Large Cardinals ‡</td>
<td>Prof. B. Löwe</td>
<td>M. W. 11, MR13</td>
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<tr>
<td>Structure and Evolution of Stars</td>
<td>Dr A. N. Zytkow</td>
<td>M. W. F. 12, MR11</td>
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<tr>
<td>Advanced Quantum Field Theory</td>
<td>Dr R. A. Reid-Edwards</td>
<td>M. W. F. 12, MR2</td>
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<tr>
<td>Fluid Dynamics of Climate</td>
<td>Prof. P. Haynes, Prof. J. R. Taylor</td>
<td>M. W. F. 12, MR12</td>
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<tr>
<td>Characteristic Classes and K-Theory</td>
<td>Prof. O. Randal-Williams</td>
<td>M. W. F. 12, MR5</td>
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<tr>
<td>Category Theory</td>
<td>Prof. P. T. Johnstone</td>
<td>Tu. Th. S. 9, MR3</td>
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<tr>
<td>Elliptic Partial Differential Equations</td>
<td>Dr G. Taujanskas and TBD</td>
<td>M. W. F. 12, MR12</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>Model Theory</td>
<td>Dr S. Barbina</td>
<td>M. W. F. 12, MR13 (sixteen lectures)</td>
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Last update 24 Feb. 23
Modern Stellar Dynamics
Dr E. Vasiliev
Tu. Th. 9, MR11

Supersymmetry and Duality
Prof. D. Tong
Tu. Th. S. 9, MR2

Theoretical Physics of Soft Condensed Matter
Prof. M. Cates
Tu. Th. 9, MR12

Introduction to Computational Complexity
Prof. W. T. Gowers
Tu. Th. 9, MR5

Statistical Field Theory
Prof. C. E. Thomas
Tu. Th. 10, MR3

Topics in Convex Optimisation
Prof. H. Fawzi
Tu. Th. 9, MR9

Commutative Algebra ‡
Dr O. Becker
Tu. Th. S. 10, MR5

Schramm-Loewner Evolutions
K. Kavvadias
Tu. Th. 9, MR13

Information Theory
Prof. I. Kontoyiannis
Tu. Th. 10, MR9

Ramsey Theory ‡
Prof. I. B. Leader
Tu. Th. 10, MR3

Extrasolar Planets: Atmospheres and Interiors
Dr N. Madhusudhan
Tu. Th. S. 10, MR11

Complex Manifolds
Dr A. Kovalev
Tu. Th. S. 10, MR5

Analysis of Partial Differential Equations
Prof. M. Dafermos
Tu. Th. S. 10, MR13

Astrophysical Black Holes
Dr D. Sijacki
Tu. Th. 10, MR11

Symmetries, Particles and Fields
Prof. M. Wingate
Tu. Th. S. 11, MR2

Direct and Inverse Scattering of Waves
Dr O. Rath Spivack
Tu. Th. 10, MR12

Causal Inference
Dr Q. Zhao
Tu. Th. 11, MR5

Functional Data Analysis
Prof. J. Aston
Tu. Th. 10, MR13
Differential Geometry
Dr J. Smith
Tu. Th. S. 11, MR9

Logic and Computability
Dr J. V. Siqueira
Tu. Th. S. 11, MR13

Quantum Field Theory
Prof. N. Dorey
Tu. Th. S. 12, MR2

Extremal and Probabilistic Combinatorics ‡
Dr J. Sahasrabudhe
Tu. Th. 12, MR4

Statistics in Medical Practice +
Dr C. Jackson and colleagues
Tu. Th. 12, MR11 (twelve lectures)

Perturbation Methods ‡
Dr S. J. Cowley
Tu. Th. 12, MR12

Local Fields
Dr R. Zhou
Tu. Th. S. 12, MR13

Functional Analysis ‡
Dr A. Zsak
Tu. Th. S. 11, MR4

Topological Quantum Matter
Prof. B. Béri
Tu. Th. 11, MR5

Analysis of Survival Data +
Dr P. Treasure
Tu. Th. 11, MR9 (twelve lectures)

Hydrodynamic Stability ‡
Prof. R. R. Kerswell
Tu Th. 11, MR12

Group Cohomology
Dr C. J. B. Brookes
Tu. Th. 11, MR13

The Standard Model
Prof. F. Quevedo
Tu. Th. S. 12, MR3

Lie Algebras and Their Representations
Prof. I. Grojnowski
Tu. Th. S. 12, MR9

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

Concentration Inequalities
Dr V. Jog
Tu. Th. 12, MR13
Laboratory Demonstrations in Fluid Dynamics
Prof. S. Dalziel, Prof. J. Neufeld
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 these lectures will only be available in exceptional circumstances.