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MATHEMATICAL TRIPOS, PART III

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 8 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.

Please note that recordings can take some time to process following the end of the lecture (up to several hours). This is due to the way Panopto stores and manages recordings, and it cannot be expedited.

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 2025

Cosmology
Prof. E. Pajer
M. W. F. 9, *MR2*

Category Theory
Prof. P. T. Johnstone
M. W. F. 9, *MR4*

Lent 2026

Stochastic Calculus with Applications to Finance
Dr M. Tehranchi
M. W. F. 9, *MR3*

Supersymmetry ‡
Prof. B. Allanach
M. F. 9, *MR5*

Easter 2026

Gauge/Gravity Duality
Prof. J. Santos
M. Tu. Th. F. 10, *MR3*

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

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Analysis of Partial Differential Equations
Dr G. Ageno
M. W. F. 9, *MR5*
First lecture on Wednesday 15 October
Additional lectures on 23 October, 1:30pm, *MR4* and 5 November, 1:30pm, MR2

Complex Manifolds
Dr M. Jeffs
M. W. F. 9, *MR9*

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

Probabilistic Combinatorics
Prof. J. Sahasrabudhe
M. W. F. 9, *MR13*

Fluid Dynamics of the Solid Earth
Dr J. Neufeld, Dr N. Shibley
M. W. F. 9, *MR12*
Mon. 9 and Wed. 11 February lectures in ***MR15***

Symmetries, Fields and Particles
Prof. M. Wingate
M. W. F. 10, *MR2*

Spectral Computations in Infinite Dimensions
Dr M. Colbrook
M. W. 9, *MR13*

Algebraic Geometry
Prof. M. Gross
M. W. F. 10, *MR5*

Black Holes
Dr A. Wall
M. W. F. 10, *MR2*

Structure and Evolution of Stars
Prof. C. A. Tout
M. W. F. 10, *MR11*

Logic and Computability ‡
Dr J. Siqueira
M. W. F. 10, *MR5*

Biological Physics
Prof. R. E. Goldstein
M. W. F. 10, *MR12*

Knots and Knot Concordances
Dr S. Kang
M. W. F. 10, *MR9*

Gaussian Processes and Measures ‡
Prof. R. Nickl
M. W. 10, *MR13*
First lecture on Friday 10 October

Quantum Entanglement in Many-body Physics
Prof. F. Verstraete
M. W. 10, *MR11*

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

Slow Viscous Flow §
Prof. J. Lister
M. W. F. 10, *MR12*
Wed. 11 February lecture in ***MR15***

Analytic Number Theory
Dr J. Teräväinen
M. W. F. 11, *MR5*

Diophantine Analysis
Prof. P. Varjú
M. W. F. 10, *MR13*

Information Theory
Prof. I. Kontoyiannis
M. W. 11, *MR9*

Non-Commutative Noetherian Rings
Dr S. Wadsley
M. W. F. 10, *MR14*

Planetary System Dynamics
Prof. M. Wyatt
M. W. F. 11, *MR11*

Elliptic Curves
Dr A. Morgan
M. W. F. 11, *MR3*

Non-Newtonian Fluid Mechanics ‡
Dr D. Hewitt, Dr K. Warburton
M. W. F. 11, *MR12*

Field Theory in Cosmology
Prof. E. P. S. Shellard, Prof. B. Sherwin
M. W. F. 11, *MR4*

Introduction to Nonlinear Analysis ‡
Prof. P. Raphael
M. W. F. 11, *MR14*

Astrostatistics
Prof. K. Mandel
M. W. F. 11, *MR9*

Modern Statistical Methods
Prof. R. Shah
M. W. F. 12, *MR5*

Noisy Mechanics
Dr R. Adhikari, Prof. M. Cates
M. W. F. 11, *MR12*
Mon. 9 February lecture in ***MR14*** *and Wed. 11 February lecture in* ***MR15***

Commutative Algebra
Dr N. Williams
M. W. F. 12, *MR9*

Advanced Quantum Field Theory
Dr R. A. Reid-Edwards
M. W. F. 12, *MR2*

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Formation of Galaxies
Prof. N. W. Evans
M. W. F. 12, *MR11*

Fluid Dynamics of Climate
Prof. P. Haynes, Dr A. Ming, Prof. J. R. Taylor
M. W. F. 12, *MR12*

Random Discrete Structures
Prof. P. Sousi
M. W. 12, *MR13*

Advanced Probability
Prof. J. R. Norris
Tu. Th. S. 9, *MR3*

Quantum Information Theory
Dr A. Capel Cuevas
Tu. Th. 9, *MR5*

Algebraic Topology
Prof. O. Randal-Williams
Tu. Th. S. 9, *MR9*

Perturbation Methods*
Dr L. Ayton
Tu. 9, *MR12* and W. 1:30, *MR9*
Additional lecture on Thu 30 October, 9am in *MR12*
No lecture on Wed 26 November.

Statistical Field Theory
Prof. H. S. Reall
Tu. Th. 10, *MR2*

Statistical Learning in Practice
Dr W. Underwood
M. W. F. 12, *MR5*
No lecture on Fri. 23 January
Additional lecture on Fri. 20 March

Extrasolar Planets: Atmospheres and Interiors ‡
Prof. N. Madhusudhan
M. W. F. 12, *MR12*
*Mon. 9 and Wed. 11 February lectures in **MR15***

Elliptic Partial Differential Equations ‡
Dr A. Guerra, Dr G. Orriols
M. W. F. 12, *MR13*

Geometric Group Theory
Prof. H. Wilton
M. W. F. 12, *MR14*

String Theory ‡
Prof. N. Dorey
Tu. Th. S. 9, *MR2*

Ramsey Theory §
Prof. I. Leader
Tu. Th. 9, *MR3*

Biological Flows §
Prof. E. Lauga
Tu. Th. 9, *MR4*

Toric Geometry
Dr V. Arena
Tu. Th. S. 10, *MR4*
Sat. 14 February lecture in MR3

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Topics in Statistical Theory
Prof. R. Samworth
Tu. Th. 10, *MR4*

Lie Algebras and Their Representations
Prof. I. Grojnowski
Tu. Th. S. 10, *MR5*

Forcing and the Continuum Hypothesis §
Prof. B. Loewe
Tu. Th. 10, *MR11*
Additional lecture on Sat. 15 November, 10am *MR4*

Topological Quantum Matter
Prof. B. Béri
Tu. Th. 10, *MR5*

Concentration Inequalities
Dr V. Jog
Tu. Th. 10, *MR9*

Statistics in Medicine
(Modules D, E, F: Analysis of Survival Data) +
Dr P. Treasure
Tu. Th. 10, *MR11* (twelve lectures)
No lecture on Tue. 2 February, additional lecture on Thu. 5 March

Mixing Times of Markov Chains
Dr A. Sarkovic
Tu. Th. 10, *MR13*

Differential Geometry
Dr Y. Li
Tu. Th. S. 11, *MR3*

Algebraic Methods in Combinatorics
M. Boase
Tu. Th. 11, *MR5*

Mathematical Analysis of the Incompressible Navier-Stokes Equations
Prof. E. Titi
Tu. Th. S. 11, *MR9*

Astrophysical Black Holes
Dr D. Sijacki
Tu. Th. 10, *MR14*

Distribution Theory and Applications §
Prof. A. Ashton
Tu. Th. 11, *MR4*

Solitons, Instantons and Geometry ‡
Prof. M. Dunajski
Tu. Th. 11, *MR5*
No lectures on Tue. 27 and Thu. 29 January
Additional lectures on Sat. 14 February and Thu. 19 March

Random Walks and Phase Transitions
Prof. P. Rodriguez
Tu. Th. S. 11, *MR9* (sixteen lectures)

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Astrophysical Fluid Dynamics
Prof. G. I. Ogilvie
Tu. Th. S. 11, *MR12*

Quantum Information, Foundations and Gravity
Prof. A. Kent
Tu. Th. 11, *MR13*

General Relativity
Prof. D. Skinner
Tu. Th. S. 12, *MR2*

Functional Analysis §
Dr A. Zsák
Tu. Th. S. 12, *MR4*

Local Fields
Prof. T. Fisher
Tu. Th. 12, *MR5*

Statistics in Medicine
(Modules A, B, C: Statistics in Medical Practice) +
Dr C. Jackson and colleagues
Tu. Th. 12, *MR11* (twelve lectures)

Model Theory ‡
Dr C. Kestner
Tu. S. 11, *MR13*
No lectures on Sat. 14 and Tue. 17 March
Additional lectures on Thu. 22 January and Thu. 5 February

Dynamics of Astrophysical Discs
Prof. H. Latter
Tu. Th. 11, *MR14*
No lecture on Tue. 17 February
Additional lecture on Thu. 19 March

The Standard Model
Prof. D. Tong
Tu. Th. S. 12, *MR2*

Analysis of Boolean Functions
Prof. W. T. Gowers
Tu. Th. 12, *MR5*

Coxeter Groups
Dr A. Jones
Tu. Th. S. 12, *MR12*
*Tue. 10 February lecture in **MR15***

Riemannian Geometry
Prof. A. G. Kovalev
Tu. Th. S. 12, *MR13*

Robust Statistics
Prof. P-L. Loh
Tu. Th. 12, *MR14*

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Laboratory Demonstrations in Fluid Dynamics
Dr M. Jalaal, Dr Q. Kriaa
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 Michaelmas term course.

* The examination for Perturbation Methods will be scheduled at the same time as the lecture courses at Tu. Th. S. 9.

‡ Recordings for this course will only be made available as a reasonable adjustment for students with a recommendation for access to recordings. Students with such a recommendation in their Student Support Document (SSD) who have not automatically been granted access to the recordings should contact the Undergraduate Office at undergrad-office@maths.cam.ac.uk. Students who require access to recordings as a reasonable adjustment, but who do not yet have a SSD, should consult their College Tutor (see also paragraph 3 of the Faculty's Statement on the Recording of Teaching Sessions).

§ 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. Students with such a recommendation in their Student Support Document (SSD) who have not automatically been notified of the alternative accommodations should contact the Undergraduate Office. Students who require access to recordings as a reasonable adjustment, but who do not yet have a SSD, should consult their College Tutor (see also paragraph 3 of the Faculty's Statement on the Recording of Teaching Sessions).