Last update 14 Mar. 25

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 9 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 2024

General Relativity
Prof. C. M. Warnick
M. W. F. 9, *MR2*

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

Lent 2025

Quantum Information Theory
Dr A. Capel
M. W. 9, *MR4*
No lecture on Wed 26 Feb or Wed 5 March.
Additional lectures on Fri 21 Feb, Fri 14 March.

Analytic Number Theory
Dr J. Teräväinen
M. W. F. 9, *MR5*
No lecture on 5 March.
Additional lecture on 21 March.

Easter 2025

Gauge/Gravity Duality
Dr A. Wall
M. Tu. Th. F. 10, *MR3*

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

Last update 14 Mar. 25

Information Theory
Prof. I. Kontoyiannis
M. W. 9, *MR9*

Formation of Galaxies ‡
Prof. N. W. Evans
M. W. F. 9, *MR11*

Biological Physics
Prof. R. Goldstein
M. W. F. 9, *MR12*
No lecture on 23 Oct and 25 Oct.

Mathematical Analysis of the Incompressible Navier-Stokes Equations §
Prof. E. S. Titi
M. W. F. 9, *MR14*

Cosmology
Prof. B. D. Sherwin
M. W. F. 10, *MR2*

Mixing Times of Markov Chains
Dr A. Sarkovic
M. W. F. 10, *MR4*

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

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

Stochastic Calculus with Applications to Finance
Dr M. Tehranchi
M. W. F. 9, *MR9*

Fluid Dynamics of the Solid Earth ‡
Prof. M. G. Worster, Dr J. Neufeld
M. W. F. 9, *MR12*

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

Black Holes
Prof. J. E. Santos
M. W. F. 10, *MR2*

Fourier Restriction Theory and Applications
Dr D. Maldague
M. W. F. 10, *MR5*

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

Fluid Dynamics of the Environment
Dr R. Bhagat, Dr D. Frank
M. W. F. 10, *MR12*

Quantum Entanglement in Many-body Physics
Prof. F. Verstraete
M. W. 10, *MR13*

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

Last update 14 Mar. 25

Inverse Problems
Dr F. Sherry
M. W. F. 10, *MR13*

Quantum Computation ‡
Dr S. Subramanian
M. W. 10, *MR14*

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

Lie Algebras and Their Representations
Dr J. Laga
M. W. F. 11, *MR5*

Planetary System Dynamics
Prof. M. Wyatt
M. W. F. 11, *MR12*
No lecture on 8 November.
Additional lectures on 7 Nov and 12 Nov, 9am MR13

Logic and Computability ‡
Dr J. Siqueira
M. W. F. 11, *MR13*

Modern Statistical Methods
Dr S. Bacallado
M. W. F. 11, *MR14*

Advanced Probability
Prof. J. Miller
M. W. F. 12, *MR3*

Elliptic Curves §
Prof. T. Fisher
M. W. F. 11, *MR3*

Astrostatistics
Prof. K. Mandel
M. W. F. 11, *MR4*

Field Theory in Cosmology
Prof. E. Pajer
M. W. F. 11, *MR11*

Fluid Dynamics of Climate
Prof. J. R. Taylor, Prof. P. H. Haynes , Dr A. Ming
M. W. F. 11, *MR12*
Additional lecture on 20 Mar, 10am MR12

Random Structures in Finite-Dimensional Space
Prof. W. Werner
M. W. F. 11, *MR13*

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

Statistical Learning in Practice
Dr E. Young
M. W. F. 12, *MR5*

Extrasolar Planets: Atmospheres and Interiors ‡
Prof. N. Madhusudhan
M. W. F. 12, *MR11*

Last update 14 Mar. 25

Commutative Algebra
Dr O. Becker
M. W. F. 12, *MR5*

Approximation Theory
Prof. A. Shadrin
M. W. 12, *MR12*

Diophantine Analysis
Prof. P. Varjú
M. W. F. 12, *MR13*

Structure and Evolution of Stars
Prof. C. A. Tout
M. W. F. 12, *MR14*

Combinatorics
Prof. I. Leader
Tu. Th. 9, *MR3*

Topics in Statistical Theory
Prof. R. Samworth
Tu. Th. 9, *MR5*

Algebraic Topology
Dr J. Steinebrunner
Tu. Th. S. 9, *MR9*

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

Introduction to Additive Combinatorics ‡
Prof. J. Wolf
Tu. Th. 10, *MR5*

Direct and Inverse Scattering of Waves ‡
Dr O. Rath Spivack
M. W. 12, *MR12*

Elliptic Partial Differential Equations
Dr G. Taujanskas
M. W. F. 12, *MR13*

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

The Standard Model
Prof. D. Tong
Tu. Th. S. 9, *MR2*

Coxeter Groups
Dr A. Jones
Tu. S. 9, *MR4*

Entropy Methods in Combinatorics
Prof. W. T. Gowers
Tu. Th. 9, *MR9*

Complex Manifolds
Dr M. Jeffs
Tu. Th. S. 10, *MR4*

Causal Inference
Dr J. Shi
Tu. Th. 10, *MR5*

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

Last update 14 Mar. 25

Differential Geometry
Prof. A. Kovalev
Tu. Th. S. 10, *MR9*

Astrophysical Fluid Dynamics
Prof. G. I. Ogilvie
Tu. Th. S. 10, *MR12*

Ramsey Theory §
Dr M. R. Ivan
Tu. Th. 11, *MR3*

Analysis of Partial Differential Equations
Prof. C. Mouhot
Tu. Th. S. 11, *MR9*
Additional lecture on Th. 5 December

Non-Newtonian Fluid Mechanics
Dr D. Hewitt
Tu. Th. 11, *MR12*

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

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

Local Fields
Dr R. Zhou
Tu. Th. S. 12, *MR5*

Theoretical Physics of Soft Condensed Matter
Prof. M. E. Cates
Tu. Th. 10, *MR11*

Distribution Theory and Applications §
Dr A. C. L. Ashton
Tu. Th. 10, *MR12*

Quantum Information, Foundations and Gravity
Prof. A. P. A. Kent
Tu. Th. 10, *MR14*

Topological Quantum Matter
Prof. B. Béri
Tu. Th. 11, *MR3*

Simplicial Homotopy Theory
Prof. J. Hahn
Tu. Th. S. 11, *MR5*

Solitons, Instantons and Geometry ‡
Prof. M. Dunajski
Tu. Th. 11, *MR9*

Statistics in Medicine
(Modules D, E, F: Analysis of Survival Data) +
Dr P. Treasure
Tu. Th. 11, *MR11,* finishing Tue 25 Feb
Lectures on Sat 25 Jan and Sat 1 Feb in *MR12*
(twelve lectures)

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

Last update 14 Mar. 25

Statistics in Medicine
(Modules A, B, C: Statistics in Medical Practice) +
Dr C. Jackson and colleagues
Tu. Th. 12, *MR11* (twelve lectures)
First lecture on Tue 15 October.
No lecture on Tue 12 November.

Perturbation Methods
Prof. D. Abrahams
Tu. Th. 12, *MR12*
No lecture on 29 Oct, 31 Oct or 14 Nov.
Additional lectures on 19 Oct, 23 Nov, 30 Nov (12pm MR12)

Introduction to Geometric Representation Theory
Prof. I. Grojnoswki
Tu. Th. S. 11, *MR13*

Model Theory ‡
Dr C. Kestner
Tu. S. 11, *MR14*
Additional lecture on Th. 27 Feb
No lectures on Tu. 25 Feb & Tue 11 Mar.

String Theory
Prof. N. Dorey
Tu. Th. S. 12, *MR2*

Concentration Inequalities
Dr L. Gavalakis
Tu. Th. 12, *MR3*

Intersection Theory ‡
Dr A. Cela
Tu. Th. S. 12, *MR13*
No lecture on Th. 13 Feb.
Additional lecture on Th. 20 Mar.

Forcing and the Continuum Hypothesis §
Dr B. Loewe
Tu. S. 12, *MR14*

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. 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. Students who require access to recordings as a reasonable adjustment, but who do not 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 have a SSD, should consult their College Tutor (see also paragraph 3 of the Faculty's Statement on the Recording of Teaching Sessions).