

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 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>.

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

Field Theory in Cosmology

Prof. E. Pajer
M. W. F. 9, *MR4*

Stochastic Calculus and Applications

Prof. J. Miller
M. W. F. 9, *MR5*

Algebraic Number Theory

Dr H. Wiersema
M. W. F. 9, *MR9*

Spectral Computations in Infinite Dimensions

Dr M. Colbrook
M. W. 9, *MR11*

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*

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*

Fluid Dynamics of the Solid Earth ‡

Prof. M. G. Worster
M. W. F. 9, *MR12*

Cubulating Spaces and Groups

Dr M. Arenas
M. W. 9, *MR13*

Quantum Computation ‡

Dr S. Subramanian
W. F. 9, *MR14*
No lecture on 19 January. Additional lecture
on 15 March.

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*

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* (sixteen lectures)

Model Theory and Non-Classical Logic

Dr J. Siqueira
M. W. F. 11, *MR13*

Astrophysical Fluid Dynamics

Prof. R. Rafikov
M. W. F. 11, *MR14*
Extra lecture on 26 Oct at 2pm, MR9
No lecture on 1 Nov

Category Theory

Prof. P. T. Johnstone
M. W. F. 12, *MR4*

Modular Forms

Prof. J. A. Thorne
M. W. F. 12, *MR5*

Modern Statistical Methods ‡

Dr S. Bacallado
M. W. F. 12, *MR9*

Fluid Dynamics of Climate

Prof. J. R. Taylor, Dr A. Ming
M. W. F. 12, *MR12*

Numerical Solution of Differential Equations

Prof. A. Iserles
M. W. F. 12, *MR13*

Planetary System Dynamics

Prof. M. Wyatt
M. W. F. 12, *MR14*

Functional Data Analysis

Prof. J. Aston
M. W. 10, *MR14*

Elliptic Curves §

Prof. T. Fisher
M. W. F. 11, *MR3*

Elliptic Partial Differential Equations

Prof. N. Wickramasekera, Dr G. Taujanskas
M. W. F. 11, *MR4*

Quantum Entanglement in Many-body Physics

Prof. F. Verstraete
M. W. 11, *MR9*

The Life and Death of Galaxies

Prof. V. Belokurov
M. W. F. 11, *MR11*

Solitons, Instantons and Geometry

Prof. D. M. A. Stuart
M. W. 11, *MR12*

Large Cardinals §

Prof. B. Loewe
M. F. 11, *MR13*

Advanced Financial Models

Prof. M. R. Tehranchi
M. W. F. 11, *MR14*

Commutative Algebra

Dr O. Becker
Tu. Th. S. 9, *MR3*

Topics in Statistical Theory

Prof. R. Samworth
Tu. Th. 9, *MR5*
Starting 10 Oct. Additional lecture on 13 Oct, 4pm in *MR5*

Functional Analysis §

Dr A. Zsák
Tu. Th. S. 9, *MR13*

Statistical Field Theory

Prof. C. E. Thomas
Tu. Th. 10, *MR2*

Causal Inference

Dr Q. Zhao
Tu. Th. 10, *MR5*

Differential Geometry

Dr A. Kovalev
Tu. Th. S. 10, *MR9*

Cosmology

Prof. B. D. Sherwin
Tu. Th. S. 11, *MR2*

Lattice Models

Prof. W. Werner
Tu. Th. 11, *MR5*

Advanced Quantum Field Theory

Dr R. A. Reid-Edwards
M. W. F. 12, *MR2*

Geometric Group Theory

Prof. H. Wilton
M. W. F. 12, *MR5*

Statistical Learning in Practice

Dr R. Altmeyer
M. W. F. 12, *MR9*

Forcing and the Continuum Hypothesis

Dr R. Matthews
M. W. F. 12, *MR13*

No lecture on 19 Feb. Additional lecture on 15 Mar.

Direct and Inverse Scattering of Waves

Dr O. Rath Spivack
M. W. 12, *MR14*

The Standard Model

Prof. D. Tong
Tu. Th. S. 9, *MR3*

Topics in Convex Optimisation ‡

Prof. H. Fawzi
Tu. Th. 9, *MR9*

Hydrodynamic Stability

Prof. R. R. Kerswell
Tu. Th. 9, *MR12*

Information Theory

Prof. I. Kontoyiannis
Tu. Th. 11, *MR9*

Analysis of Partial Differential Equations

Dr Z. Wyatt
Tu. Th. S. 11, *MR13*

Symmetries, Fields and Particles

Prof. M. Wingate
Tu. Th. S. 12, *MR2*

Ramsey Theory on Graphs

Dr J. Sahasrabudhe
Tu. Th. 12, *MR4*

Local Fields

Dr R. Zhou
Tu. Th. S. 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*

Introduction to Computational Complexity

Prof. W. T. Gowers
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*

Robust Statistics

Prof. P-L. Loh
Tu. Th. 10, *MR14*

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*

Group Cohomology

Dr C. J. B. Brookes
Tu. Th. 11, *MR14*

String Theory

Prof D. B. Skinner
Tu. Th. 12, *MR2*
S. 10, *MR3*

Concentration Inequalities

Dr V. Jog
Tu. Th. 12, *MR3*

Stochastic Processes in Biology

Dr M. Bruna, Dr T. Plesa
Tu. Th. 12, *MR12*

Laboratory Demonstrations in Fluid Dynamics

Prof. S. Dalziel
W. 2-3:30, *Fluids Laboratory*

‡ 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.