

## MATHEMATICAL TRIPOS PART III

There will be a meeting on Wednesday 7 October 2020 at 9.30 a.m. for all those who intend to offer courses in Part III.

There is a series of meetings for Part III students on Wednesdays at 4.15 p.m. 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>.

All Michaelmas term lectures will be delivered remotely. Those marked \* will be live-streamed at the advertised time. Recordings of all lectures will be available, at the latest, on the scheduled day of the lecture. All Part III and PhD students in the Faculty are able to self-enrol in these courses. All other members of the University wishing to access these courses are requested to contact [partiii-secretary@maths.cam.ac.uk](mailto:partiii-secretary@maths.cam.ac.uk).

### MICHAELMAS 2020

#### **Category Theory\***

PROF. P. T. JOHNSTONE  
M. W. F. 9

#### **Cosmology**

DR B. D. SHERWIN  
M. W. F. 9

#### **Local Fields**

DR R. ZHOU  
M. W. F. 9

#### **Mixing Times of Markov Chains**

DR P. SOUSI  
M. W. 9

#### **Advanced Probability**

PROF. J. NORRIS  
M. W. F. 10

#### **Algebraic Geometry\***

PROF. M. GROSS  
M. W. F. 10

#### **Formation of Galaxies**

PROF. N. W. EVANS  
M. W. F. 10

#### **Slow Viscous Flow**

PROF. J. R. LISTER  
M. W. F. 10

### LENT 2021

#### **Black Holes**

DR J. E. SANTOS  
M. W. F. 9

#### **Fluid Dynamics of the Environment**

PROF. S. DALZIEL  
M. W. F. 9

#### **Metric Embeddings**

DR A. ZSÁK  
M. W. F. 9

#### **The Life and Death of Galaxies\***

PROF. V. A. BELOKUROV  
M. W. F. 9

#### **Astrophysical Fluid Dynamics**

PROF. G. I. OGILVIE  
M. W. F. 10

#### **Field Theory in Cosmology**

DR T. BALDAUF, DR E. PAJER  
M. W. F. 10

#### **Quantum Information Theory**

DR S. STRELCHUK  
M. W. F. 10

#### **Random Planar Geometry**

PROF. J. MILLER  
M. W. 10

### EASTER 2021

#### **Gauge/Gravity Duality**

DR A. WALL  
M. Tu. Th. F. 10

#### **Classical and Quantum Solitons**

PROF. N. S. MANTON  
M. Tu. Th. F. 11

**Algebraic Topology**

PROF. I. SMITH

M. W. F. 11

**Fluid Dynamics of Climate\***

PROF. P. H. HAYNES, DR J. R. TAYLOR

M. W. F. 11

**Percolation and Related Topics**

PROF. G. R. GRIMMETT

M. W. 11

**Structure and Evolution of Stars**

DR A. N. ZYTKOW

M. W. F. 11

**Symmetries, Fields and Particles**

PROF. B. ALLANACH

M. W. F. 11

**Elliptic Curves**

DR T. A. FISHER

M. W. F. 12

**General Relativity**

PROF. H. S. REALL

M. W. F. 12

**Introduction to Non-Linear Analysis**

PROF. P. RAPHAEL

M. W. F. 12

**Model Theory\***

DR G. CONANT

M. W. F. 12

**Modern Statistical Methods**

DR S. BACALLADO

M. W. F. 12

**Planetary System Dynamics**

PROF. M. WYATT

M. W. F. 12

**Commutative Algebra**

DR S. MARTIN

Tu. Th. S. 9

**Statistical Learning in Practice**

DR A. J. COCA

M. W. F. 10

**Astrophysical Black Holes**

DR D. SIJACKI

M. W. 11

**Hydrodynamic Stability**

PROF. R. R. KERSWELL

M. W. 11

**Infinite Games\***

PROF. B. LÖWE

M. W. F. 11

**Modular Forms**

PROF. J. A. THORNE

M. W. F. 11

**Stochastic Calculus and Applications**

DR M. TEHRANCHI

M. W. F. 11

**The Standard Model**

PROF. F. QUEVEDO

M. W. F. 11

**Astrostatistics**

DR K. MANDEL

M. W. F. 12

**Homotopy Theory\***

DR O. RANDAL-WILLIAMS

M. W. F. 12

**String Theory**

DR R. REID-EDWARDS

M. W. F. 12

**Theoretical Physics of Soft Condensed Matter\***

DR R. ADHIKARI, PROF. M. E. CATES, DR R. L.

JACK

M. W. F. 12

**Profinite Groups and Group Cohomology\***

DR G. WILKES

Tu. Th. S. 9

**Differential Geometry**

DR J. SMITH

Tu. Th. S. 9

**Quantum Computation\***

PROF. R. JOZSA

Tu. Th. 9

**Topics in Statistical Theory**

PROF. R. SAMWORTH

Tu. Th. 9

**Distribution Theory and Applications**

DR A. ASHTON

Tu. Th. 10

**Extrasolar Planets**

DR N. MADHUSUDHAN

Tu. Th. S. 10

**Finite Dimensional Lie and Associative Algebras**

DR C. J. B. BROOKES

Tu. Th. S. 10

**Causal Inference**

DR Q. ZHAO

Tu. Th. 11

**Complex Dynamics**

DR H. KRIEGER

Tu. Th. 11

**Inverse Problems**

DR Y. KOROLEV, DR J. LATZ

Tu. Th. S. 11

**Non-Newtonian Fluid Mechanics**

PROF. E. LAUGA

Tu. Th. 11

**Statistical Field Theory**

DR C. E. THOMAS

Tu. Th. 11

**Ramsey Theory**

PROF. I. LEADER

Tu. Th. 9

**Robust Statistics**

DR P-L. LOH

Tu. Th. 9

**Symplectic Topology\***

DR A. KEATING

Tu. Th. 9

**Additive Combinatorics**

DR T. BLOOM

Tu. Th. S. 10

**Advanced Quantum Field Theory**

DR M. B. WINGATE

Tu. Th. S. 10

**Algebraic Surfaces\***

DR D. RANGANATHAN

Tu. Th. S. 10

**Fluid Dynamics of the Solid Earth**

DR J. NEUFELD

Tu. Th. 10

**Functional Data Analysis**

PROF. J. ASTON

Tu. Th. 10

**Analysis of Survival Data\* +**

DR P. TREASURE

Tu. Th. 11 (Twelve lectures)

Starting Th. Jan 28<sup>th</sup>**Binary Stars**

PROF. C. A. TOUT

Tu. Th. 11

**Mapping Class Groups**

DR H. WILTON

Tu. Th. 11

**Statistics in Medical Practice +**  
DR C. JACKSON AND COLLEAGUES  
Tu. Th. 11 (Twelve lectures)

**Topics in Combinatorics**  
PROF. W. T. GOWERS  
Tu. Th. 11

**Perturbation Methods**  
DR S. J. COWLEY  
Tu. Th. 12

**Quantum Field Theory**  
PROF. N. DOREY  
Tu. Th. S. 12

**Numerical Solution of Differential Equations**  
PROF. A. ISERLES  
Tu. Th. S. 11

**Representation Theory of Symmetric Groups**  
DR S. W. C. LAW  
Tu. Th. S. 11

**Supersymmetry**  
DR D. B. SKINNER  
Tu. Th. 11

**Algebraic Number Theory\***  
PROF. A. J. SCHOLL  
Tu. Th. S. 12

**Analysis of Partial Differential Equations**  
PROF. E. TITI  
Tu. Th. S. 12

**Applications of Differential Geometry to Physics**  
DR M. DUNAJSKI  
Tu. Th. 12

**Dynamics of Astrophysical Disks**  
DR H. LATTER  
Tu. Th. 12

**Information Theory**  
DR I. KONTOYIANNIS  
Tu. Th. 12

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