Mathematical Institute and Department of Physics

Examination Conventions 2025-2026

Master's in Mathematical and Theoretical Physics (MMathPhys)
MSc in Mathematical and Theoretical Physics (MSc MTP)

1 Introduction

Examination conventions are the formal record of the specific assessment standards for the course or courses to which they apply. They set out how examined work will be marked and how the resulting marks will be used to arrive at a final result and classification of an award.

This document sets out the examination conventions for the Master's in Mathematical and Theoretical Physics (MMathPhys) and the M.Sc. in Mathematical and Theoretical Physics (MSc MTP) for the academic year 2025-26.[1] These examination conventions are approved annually by the Joint Supervisory Committee for the MSc in Mathematical and Theoretical Physics and Master of Mathematics and Physics. The Board of Examiners may only make minor deviations from these conventions in exceptional circumstances and only after the consent of the Proctors.

This document is in all ways subsidiary to the current

Examinations Regulations;
Examinations and Assessment Framework

2 General Structure of the Examination

2.1 Unit weighting

This master's programme gives each course a unit weighting, typically corresponding to the number of lecture hours given.

Lectures	***Units***	***Example***
8 hours	0.5	Topics in Soft and Active Matter Physics
12 hours	0.75	Quantum Processes in Hot Plasma
16 hours	1	Advanced Fluid Dynamics
24 hours	1.5	Groups and Representations
28 hours	1.75	Kinetic Theory

[1] Note that certain lecture courses offered within the MMathPhys/MScMTP are Part C Mathematics courses offered within the MMath and MSc in Mathematical Sciences programmes. The examinations for these courses are the responsibility of the Part C Mathematics/OMMS Examiners and follow the rules set out in the corresponding examination conventions. *(link to follow)*
Likewise, where an approved course is taken from Part C Mathematics, Physics, or Computer Science, examinations for these courses will follow the rules set out in the corresponding examination conventions.

Standard dissertations, of up to 30 pages, are considered one unit. Extended dissertations, of up to 60 pages, are two.

Students may, with specific permission of the Course Director, substitute up to a maximum of **three units** with appropriate courses of study from outside the published list. These will normally be from the Departments of Mathematics, Physics, or Computer Science. The Course Director will indicate at the point of approval the number of units for which a given approved course will count. Exceptionally, Part B courses may be allowed as approved courses, but in these cases an extra component of work may be required to bring them up to an appropriate level.

2.2 Assessment methods

All courses in this programme are assessed by e*ither:*

Formal assessment*; options include

- In-person invigilated examination
- Take-home exam
- Mini-project

or

Homework completion

*Dissertations are also considered a formal assessment.

Some courses offer both assessment methods, in which case candidates may choose which method they prefer. **The exception to this is the course Groups and Representations, which requires <u>both</u> an in-person invigilated exam *<u>and</u>* homework completion.**

2.3 Course Requirements

All students are required to offer, i.e., enter for assessment in, **at least ten units** worth of courses. Of these ten,

4	**must be**	in-person invigilated exams	
3	**must be**	further formal assessments:	in-person invigilated exam take-home exam mini-project dissertation
3	**may be**	any assessment method available, including homework completion.	

This is a pre-requisite to passing the degree and must be followed. It is the student's responsibility to ensure that she/he fulfils these requirements for the overall number of units and the number of formally assessed units offered and completed.

3 Assessments

3.1 Invigilated Written Examinations

The duration of written examinations will normally be 1.75 or 2 hours for a 16-hour lecture course and 3 hours for a 24-hour or 28-hour lecture course. Candidates will typically be asked to answer two (three) questions for 16-hour (24/28-hour) lecture courses, each worth 25 marks. Expected dates or date ranges for each exam and the structure of the paper can be found in Appendix A.

Written examinations will be marked by a single assessor according to pre-agreed model solutions and marking schemes. The examination scripts will then be checked by an independent checker to ensure that all work has been marked, and that the marks have been correctly totalled and recorded.

The use of handheld pocket calculators is generally not permitted but certain kinds may be permitted for some papers. Specifications of which types of calculator are permitted for any such exceptional papers will be announced by the Examiners in the term preceding the examination.

3.2 Take-Home Examinations

Courses may be assessed by take-home exams[2]. These are written examinations which students are expected to complete at home over a period of several days. Students are allowed to use books, but must not discuss the exam with anybody else. Take-home exams will normally be marked by a single assessor, according to pre-agreed model solutions and marking schemes. The examination scripts are then checked by an independent checker to ensure that all work has been marked, and that the marks have been correctly totalled and recorded.

3.3 Mini-Projects

Mini-projects are normally set by the course lecturer. Mini-projects set for courses in HT will be released to candidates at the end of that term (often Friday of week 8), and the submission deadline will be several weeks later (often at the end of week 11 of that same term). Mini-projects set for courses in TT will be released to candidates on the Monday of week 6 of term, and the submission deadline will be noon on the Monday of week 9 of term.

For Advanced Philosophy of Physics, the mini-project will comprise two essays of at most 5,000 words each. A list of approved essay topics will be released on or before Friday of week 4 of Hilary Term. Students

[2] In 2025-2026, only one course (Collisionless Plasma Physics) will be assessed by take-home exam.

may apply for approval for their own topics following the procedure specified in the Examination Regulations for the Honour School of Physics and Philosophy. Any such application must be received no later than Friday of week 6 of Hilary Term. Essays must be submitted by noon on Friday of week 4 of Trinity Term. The regulations for preparation and submission of the essays are otherwise identical to those governing essays for other Philosophy subjects in Part C, as specified in the Special Regulations for Philosophy in all Honour Schools involving Philosophy.

Mini-projects will be double-blind marked, normally by the course lecturer and one other assessor. The marks of the two assessors will be reconciled following the standard procedure detailed in Appendix B. Qualitative descriptors for levels of performance characterised by ranges of USMs are given below in Appendix D.1. The exception to this is that mini-projects which have pre-agreed model solutions and marking schemes will be marked by a single assessor. Such mini-projects will then be checked by an independent checker to ensure that all work has been marked, and that the marks have been correctly totalled and recorded.

3.4 Homework Completion

Some courses require that homework is completed to a certain standard in order to complete the course. There are three types of such courses:

- courses with formal assessment (an invigilated written examination, a take-home examination, or a mini-project) **and** a homework component that needs to be completed (only Groups and Representations in 2024-2025),
- courses with formal assessment (an invigilated written examination, a take-home examination, or a mini-project) **or** a homework component that needs to be completed, and
- courses without formal assessment (mostly certain advanced courses taught in HT and TT) but with a requirement for homework completion.

Note that courses from Part C of the MMath program do not have homework completion requirements. The tables in Appendix A indicate the assessment method for every course and whether or not the course has a homework completion requirement.

The homework for all courses with a homework requirement will be assigned by the lecturer of the course. Each homework submission will be marked by a teaching assistant (TA) based on solutions provided by the lecturer. Some of the courses will be accompanied by classes led by tutors in order to discuss the homework assignments. The homework problems will be marked using a letter system A/B/C for problems solved or attempted competently (A for excellent, B good, C fair), and F for those problems which are not handed in or, if attempted, show insufficient understanding of the concepts taught in the lectures. The TA will record the mark of each problem and return the marked scripts as promptly as possible.

The homework requirement for a course will have been completed if 50% of each problem sheet assigned has a mark A/B/C. Otherwise the homework requirement will normally be judged to have not been completed. The Examiners will make the final determination as to whether or not each student has completed the homework requirement for any given unit.

3.4.1 Late homework submission

Each homework will have a submission deadline after which submissions will not be accepted. Where a homework cannot be submitted on time due to acute illness or other urgent cause, students should submit a request for an extension or excusal for that homework. Where the extended deadline requested falls before the class at which the work will be discussed, the request will be considered by the lecturer of the course; where the extended deadline would fall after the class, or where an excusal is requested, the request will be considered by the Chair of Examiners.

Students may not request an extension informally but should follow the procedure set out in the Course Handbook *(link to follow)*

3.5 Dissertations

Dissertations will normally be marked by the dissertation supervisor and blind-marked by one other assessor with relevant expertise. The marks of the two assessors will be reconciled following the procedure detailed in Appendix B. Qualitative descriptors for levels of performance characterised by ranges of USMs are given below in Appendix D.2.

A standard dissertation counts for one unit. Subject to permission from the Joint Supervisor Committee, candidates can opt for an extended dissertation with a wider scope which will count for two units.

Students taking a single unit dissertation are required to give a presentation to their supervisor and at least one other person. The presentations are informal and can take place in person or over teams, as thought best.

The assessors of a dissertation that, in their view, shows particular originality and/or insight may recommend to the Examiners that the dissertation be given a commendation.

The submission deadline for dissertations is noon on Monday of week 6 of Trinity Term.

3.6 Examination Adjustments

Rules governing adjustment to examination arrangements are set out in full in the Examination Regulations (Regulations for the Conduct of University Examinations, Part 12). Students may apply through their college to the Student Assessments Team to request approval for any adjustments to examinations as a result of a disability or other need. In most circumstances, a Student Support Plan (SSP) or medical certificate will be required. Details of the process and relevant deadlines are available in the SAT website.
If a student is forbidden, for reasons of faith, from taking papers on religious festivals or other special days which may coincide with days on which examinations are set, or is fasting, they may also apply for approval of alternative examination arrangements through their college. The rules governing adjustments due to religious observance are set out in full in the Examination Regulations (Regulations for the Conduct of University Examinations, Part 11). Chairs will be notified of adjustments and should make particular note of cases when examinations will be sat at different times from those timetabled for the main cohort, as this may affect planning for marking.

Students may apply for adjustments after matriculation (18th October 2025) and **no later than Friday of Week 4** of the term before the exam is due to take place. It is your responsibility to request exam adjustments and provide any supporting evidence required.

Part C students (MMathPhys students) with ongoing exam adjustments will need to re-apply for adjustments. These are not carried over from your previous course.

3.7 Penalties for Non-attendance

Rules governing non-attendance at examinations and any consequent penalties are set out in full in the Examination Regulations (Regulations for the Conduct of University Examinations, Part 14). If a student will be prevented by illness or other urgent cause from attending one of their examinations they should contact their college office as soon as possible and request an *exam excusal.*

Students may apply for an excusal up to **4 weeks before** the exam takes place. If a student is prevented from attending on the day (e.g. sudden illness or other unavoidable emergency), they may apply for an excusal **up to 14 days after** the exam takes place.

Note, an application may only be made due to 'illness or other urgent cause that is unforeseeable, unavoidable and/or insurmountable.' This means that applications under Part 14 are for **acute circumstances only.**

Any case of non-attendance at an examination involving illness or other medical condition will require written medical evidence and will usually be referred by the college to the Proctors. If the Proctors do not believe there are satisfactory reasons for non-attendance, or an application

to the Proctors has not been submitted, a candidate will be awarded a mark of zero for that examination.

For Part C students (MMathPhys students), failure to submit a required element of assessment or to attend a required examination without an accepted reason will result in failure of the entirety of Part C (MMathPhys).

For MSc students, failure to submit a required element of assessment or to attend a required examination without an accepted reason will result in the failure of that assessment item.

For the purposes of applying these regulations, an element of assessment will be considered as required if its omission would lead to a failure to offer a sufficient set of units to satisfy the overall requirements of the course.

3.8 Penalties for Late Submission or Non-Submission

Rules governing late submission and any consequent penalties are set out in full in the 'Late submission of a thesis or other written exercise and Consequences of non-appearance or non-submission' subsections of the Regulations for the Conduct of University Examinations section of the Examination Regulations 2025/2026.

Candidates prevented by illness or other urgent causes from submitting a dissertation, a take-home exam, or a mini-project on time should ask their college to submit an application for an extension to the Proctors on their behalf. If the Proctors grant permission to submit work late under clause 1 of paragraph 14.6 (Examination Regulations), no penalty will be applied.
Work submitted late without prior permission may still be accepted for assessment under paragraph 14.7 (Examination Regulations), but the Examiners may apply a penalty of a reduction in the mark for the work (see the table below). Candidates are advised to inform their college office or their college's Tutor for Graduates of any mitigating circumstances as soon as possible so that the college can make an application to the Proctors if appropriate.

The penalty will be a percentage reduction of the maximum total mark available for the work so, for example, in the case of a 10% penalty, 10 University standardised Marks (USMs) would be deducted. The final mark awarded after application of the penalty cannot be below 0. Penalties will only be applied after the work has been marked and the Exam Board has checked whether there are any valid reasons for late submission.

Lateness	Penalty, % point reduction
Up to 4 hours	1 %
4–24 hours	10%
24–48 hours	20%
48–72 hours	30%
72 hours – 14 days	35%
More than 14 days late	Fail

Table 1: Late Submission Tariff for Dissertations, Mini-Projects, and Take-Home Exams

3.9 Application for Consideration of Mitigating Circumstances

Students who are affected by illness or other acute circumstances which significantly affect their performance leading up to or during an assessment may submit a mitigating circumstances notice (MCE) for the consideration of the Examiners. Students are advised to discuss their circumstances with their college and consult the Examination Regulations (Part 13). Candidates should complete the form entitled 'Mitigating Circumstances Notices to Examiners' and send this to their college with appropriate supporting material. The candidate's college will submit the application for forwarding to the relevant Chair of Examiners.

Students should submit an MCE as soon as possible after sitting the affected papers or submitting the work. MCEs should not normally be submitted before an examination or deadline as students will need to include their assessment of how they believe their circumstances affected their performance.

MCEs must be submitted by noon the day before the final meeting of the examiners which will decide candidates' overall results.

If a student is unable to submit their MCE by noon the day before the final exam board, they may still submit an MCE up to a month after the final Examiners meeting. Reasons for late submission will be considered by the Proctors and the notice will only be passed on to the Examiners if at least one of the following criteria is met:

- The student's condition prevented them from submitting an MCE earlier
- The student's condition was not known or diagnosed until after the deadline for submission of an MCE
- There was a procedural error beyond the student's control which prevented their MCE from being submitted.

4 Poor Academic Practice and Plagiarism

Candidates are reminded of the importance of avoiding any suspicion of plagiarism, please see http://www.ox.ac. uk/students/academic/guidance/skills/plagiarism for further guidance.

The Examination Board shall deal wholly with cases of poor academic practice in submitted work and take-home examinations where the amount of material under review is small and does not exceed 10% of the whole. Assessors will mark work on its academic merit with the Board being responsible for deducting marks for derivative or poor referencing. Depending on the extent of poor academic practice, the board may deduct between 1% and 10% of the marks available for cases of poor referencing where material is widely available factual information or a technical description that could not be paraphrased easily; where passage(s) draw on a variety of sources, either verbatim or derivative, in patchwork fashion (and examiners consider that this represents poor academic practice rather than an attempt to deceive); where some attempt has

been made to provide references, however incomplete (*e.g.*, footnotes but no quotation marks); or where passage(s) are 'grey literature', *i.e.*, a web source with no clear owner.

Where the consequence of the marks deduction would result in failure of the assessment and of the programme, the case will be referred to the Proctors. If a student has previously had marks deducted for poor academic practice or has been referred to the Proctors for suspected plagiarism, the case will be referred to the Proctors. More serious cases of poor academic practice than described above will also be referred to the Proctors.

5 Analysis of Marks

The Examiners will assign USMs for each unit of assessment undertaken by a student and may rescale the raw marks in order to arrive at the USM reported to students. When considering whether to scale the raw marks for a particular unit, the Examiners will take into consideration:

- the relative difficulty of the unit compared to the other units in the programme;
- the report submitted by the assessor who set and marked the unit.

The board of Examiners will use their academic judgement to ensure that appropriate USMs are awarded and may use further statistics to check that the marks assigned fairly reflect the candidates' performances. It is expected that scaling will be achieved by a piecewise linear mapping of the percentage class boundaries onto the USM scheme.

6 Consideration of Mitigating Circumstances

The board of Examiners will consider mitigating circumstances notices according to the following procedure:

(a) A subset of the board will meet to discuss the individual applications and band the seriousness of each application on a scale of 1-3 with 1 indicating minor impact, 2 indicating moderate impact, and 3 indicating very serious impact. The Panel will evaluate, on the basis of the information provided to it, the relevance of the circumstances to examinations and assessment, and the strength of the evidence provided in support. Examiners will also note whether all or a subset of papers were affected, being aware that it is possible for circumstances to have different levels of impact on different papers.

(b) The banding information will be used at the final board of Examiners meeting to adjudicate on the merits of candidates.

(c) A brief, formal record will be kept confirming (i) the fact that information about special circumstances has been considered by the Examiners, (ii) how that information has been considered, and (iii) the outcome of the consideration.

7 Degree Classification Conventions

Outcomes for all formally assessed courses will be published as USMs. Qualitative descriptors for levels of performance characterised by ranges of USMs are given below in Appendix D.3.

A formally assessed course is considered completed if the USM of the course is 50% and if any homework requirement has been completed. A course with no formal assessment is considered completed if the homework requirement has been completed.

The overall USM is calculated by considering all possible subsets of courses offered by the student that satisfy the overall course requirements and taking the maximum weighted (by number of units) average USM amongst all of these subsets, the formula for which is described in Appendix C.

The overall MMathPhys/MScMTP degree classification is as follows:

- A *Distinction* will be awarded if all of the following conditions are satisfied.
  i) The candidate offers at least 10 units. These must contain at least 7 formally assessed units of which at least 4 units have a written invigilated exam.
  ii) At least 10 units have been completed. In exceptional circumstances, the examiners may relax this
  iii) requirement.
  iv) Overall $USM \geq 70$.

- A *Merit* will be awarded if all of the following conditions are satisfied.
  i) The candidate offers at least 10 units. These must contain at least 7 formally assessed units of which at least 4 units have a written invigilated exam.
  ii) At least 9 units have been completed. In exceptional circumstances, the examiners may relax this requirement.
  iii) Overall USM ≥ 65
  iv) The candidate does not qualify for a distinction.

- A *Pass* will be awarded if all of the following conditions are satisfied.
  i) The candidate offers at least 10 units. These must contain at least 7 formally assessed units of which at least 4 units have a written invigilated exam.
  ii) At least 8 units have been completed. In exceptional circumstances, the examiners may relax this requirement.
  iii) Overall USM ≥ 50.
  iv) The candidate does not qualify for a merit or distinction.

- A candidate not meeting any of the above will be deemed to have *Failed*.

The Examiners will use their academic judgement to ensure a fair outcome for all candidates, and to produce a consistent ranked list of candidates according to the classification scheme above.

Master of Mathematical and Theoretical Physics: A student on the Master's in Mathematical and Theoretical Physics course who satisfies the Examiners may supplicate for the degree of Master of Mathematical and Theoretical Physics with the above associated classification; additionally their transcript will show the classification for Parts A and B as previously assigned by the Part B Examiners in the subject in which he or she sat those parts.

MSc in Mathematical and Theoretical Physics: A student on the MSc in Mathematical and Theoretical Physics course who satisfies the Examiners may supplicate for the degree of MSc in Mathematical and Theoretical Physics with the above associated classification.

8 Resits

A candidate who fails to satisfy the Examiners may retake the examination on at most one subsequent occasion. This resit attempt shall normally be taken at the next opportunity, but may be deferred once, *i.e.*, **it must be taken at one of the next two opportunities.** In such a case the Examiners will specify at the time of failure which components of the examination may or must be retaken, and the student will not be eligible for a merit or distinction on the whole course. Where a course is no longer being offered in the year of the resit, the Examiners will be responsible for arranging provisions. No piece of written work shall be submitted for examination on more than one occasion. No student who has satisfied the Examiners in the examination may enter again for the same examination. For more information, please see Part 14 of the Examination Regulations.

An MMathPhys candidate who resits a unit for which a technical fail mark was originally awarded (a unit for which no work was submitted or a written examination was missed) will have that paper assessed on its merits.

An MSc candidate who resits a unit for which a technical fail mark was originally awarded (a unit for which no work was submitted or a written examination was missed) will have the mark for that unit capped at 50.

9 Examiners for 2025-2026

The internal Examiners are:

Prof Steve Simon (Chair)

Prof Dmitri Uzdensky

Prof Mark Mezei

The external Examiners are:

Prof Steven Tobias, Professor of Applied Mathematics, University of Leeds;

Prof Maciej Dunajski, Professor of Mathematical Physics, University of Edinburgh

Candidates should not, under any circumstances, contact individual internal or external examiners on matters related to the conduct of the examination. Any communication must be via the Senior Tutor of the respective candidate's college, the Director of Studies, or the Course Administrator, who will contact the Proctors if appropriate. The Proctors in turn communicate with the Chair of Examiners.

Appendices

A Assessment Methods by Course

MICHAELMAS					
Course Title	**Units**	**Assessment Method**	**Assessment Instruction**	**Assessment Date/Deadline**	**Exam Entry**
Advanced Philosophy of Physics	1.5	mini-project *OR* *homework completion*	Released Fri 4HT *N/A*	noon Fri 4TT *N/A*	7 - 14 May 26 *22-29 Jan 26*
Anyons and Topological Quantum Field Theory	1	in-person exam *OR* *homework completion*	2hrs (2 of 2 questions) *N/A*	0 HT *N/A*	30 Oct - 7 Nov 25 *22-29 Jan 26*
C3.1 Algebraic Topology	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C3.3 Differentiable Manifolds	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C3.4 Algebraic Geometry	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C5.5 Perturbation Methods	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C6.1 Numerical Linear Algebra	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C7.5 General Relativity I	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
Dissertation (single)	1	dissertation	30 pages	Mon 6TT	7 - 14 May 26
Dissertation (double unit)	2	dissertation	60 pages	Mon 6TT	7 - 14 May 26
Groups and Representations	1.5	in-person exam **AND homework completion**	3hrs (3 of 3 questions) **N/A**	0 HT **N/A**	30 Oct - 7 Nov 25 **22-29 Jan 26**
Kinetic Theory	1.75	in-person exam *OR* *homework completion*	3hrs (3 of 3 questions) *N/A*	0 HT *N/A*	30 Oct - 7 Nov 25 *22-29 Jan 26*
Quantum Field Theory	1.5	in-person exam	3hrs (3 of 3 questions)	0 HT	30 Oct - 7 Nov 25
Quantum Matter 1: Phases of Matter and Field Theories	1	in-person exam	2hrs (2 of 2 questions)	6-8TT	22-29 Jan 26
Quantum Processes in Hot Plasma	0.75	homework completion	N/A	N/A	22-29 Jan 26

HILARY					
Course Title	**Units**	**Assessment Method**	**Assessment Instruction**	**Assessment Date/Deadline**	**Exam Entry**
Advanced Fluid Dynamics	1	in-person exam *OR* *homework completion*	2hrs (2 of 2 questions) *N/A*	0TT *N/A*	22-29 Jan 26 *7-14 May 26*
Advanced QFT	1.5	in-person exam	3hrs (3 of 3 questions)	0TT	22-29 Jan 26
Algorithms and Computations in Theoretical Physics: a Set of Lectures	1	homework completion	N/A	N/A	7-14 May 26
C3.11 Riemannian Geometry	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C3.12 Low-Dimensional Topology and Knot Theory	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C3.2 Geometric Group Theory	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C3.5 Lie Groups	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C5.4 Networks	1	mini-project	Released Fri 8HT	Fri -1TT	22-29 Jan 26
C5.6 Applied Complex Variables	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C7.4 Intro to Quantum Information	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C7.6 General Relativity II	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
C7.7 Random Matrix Theory	1	in-person exam	1hr 45 (2 of 2 questions)	6-8TT	22-29 Jan 26
Collisionless Plasma Physics	1	take-home exam *OR* *homework completion*	Released Fri 8HT *N/A*	Wed 9HT *N/A*	22-29 Jan 26 *7-14 May 26*
Cosmology	1	in-person exam	2hrs (2 of 2 questions)	6-8TT	22-29 Jan 26
Galactic and Planetary Dynamics	1	mini-project *OR* *homework completion*	Released Fri 8HT *N/A*	Fri 11HT *N/A*	22-29 Jan 26 *7-14 May 26*
Geophysical Fluid Dynamics	1	in-person exam	2hrs (2 of 2 questions)	6-8TT	22-29 Jan 26
High Energy Density Plasma Physics	1	homework completion	N/A	N/A	7-14 May 26
Nonequilibrium Statistical Physics	1	in-person exam *OR* *homework completion*	2hrs (2 of 2 questions) *N/A*	0TT *N/A*	22-29 Jan 26 *7-14 May 26*
Quantum Matter 2: Quantum Fluids	1	in-person exam *OR* *homework completion*	2hrs (2 of 2 questions) *N/A*	0TT *N/A*	22-29 Jan 26 *7-14 May 26*
Quantum Matter 3: Quantum Dynamics and Information in Many-particle Systems	1	homework completion	N/A	N/A	7-14 May 26
String Theory I	1	in-person exam	2hrs (2 of 2 questions)	0TT	22-29 Jan 26
Supersymmetry & Supergravity	1	in-person exam	2hrs (2 of 2 questions)	0TT	22-29 Jan 26

TRINITY					
Course Title	**Units**	**Assessment Method**	**Assessment Instruction**	**Assessment Date/Deadline**	**Exam Entry**
Advanced Topics in Plasma Physics	0.75	homework completion	N/A	N/A	7-14 May 26
Astroparticle Physics	1	homework completion	N/A	N/A	7-14 May 26
Collisional Plasma Physics	1	homework completion	N/A	N/A	7-14 May 26
Conformal Field Theory	1	homework completion	N/A	N/A	7-14 May 26
Machine Learning Fundamentals with Applications to Physics and Mathematics	1	homework completion	N/A	N/A	7-14 May 26
Quantum Field Theory in Curved Space	1	homework completion	N/A	N/A	7-14 May 26
Quantum Matter 4: Renormalization and Bosonization	1	homework completion	N/A	N/A	7-14 May 26
Renormalisation Group	1	homework completion	N/A	N/A	7-14 May 26
String Theory II	1	homework completion	N/A	N/A	7-14 May 26
The Standard Model and Beyond I	1	homework completion	N/A	N/A	7-14 May 26
The Standard Model and Beyond II	1	homework completion	N/A	N/A	7-14 May 26
Topics in Soft and Active Matter Physics	0.5	homework completion	N/A	N/A	7-14 May 26

B Reconciliation Procedure

The Examiners will follow the procedure below when reconciling marks for assessments which are double-blind marked.

1. The two assessors each read the assessment; the assessors independently write reports and produce preliminary marks.
2. If the reports are broadly in agreement and the two assessor marks differ by no more than 10 marks, the Examiners can take the average of the two marks as the provisional mark, symmetrically rounded if necessary (for example, 75.49 will be rounded down and 75.50 will be rounded up).
3. If (2) does not apply, then the Examiners will ask the assessors to confer on the standard of the work with a view to agreeing a mark. E-mail discussions may be sufficient in simple cases, providing nothing is communicated that breaches exam security. The focus will be on identifying the reasons for any difference in the proposed marks.
4. If the two assessors agree on a mark under (3), they report the agreed mark to the Examiners, who will normally take the agreed mark as the provisional mark.
5. If the two assessors cannot agree under (3), they send a summary of the discussion in (3) to the Examiners. The Examiners will appoint a third assessor who will independently assess the project before receiving the marks from the other assessors. The third assessor will make a recommendation to the Examiners.

C Determination of the overall *USM*

An overall average USM will be determined as follows.

Let $\{c_1, \ldots, c_n\}$ be the set of formally assessed courses a student has offered. For each of these courses c_i, the number of units of the course is denoted by u_i, the number of units assessed by a written invigilated exam by w_i (zero if the course does not have a written invigilated exam) and the USM achieved by m_i. For a subset of these courses, given by an index set $S \subset \{1, \ldots, n\}$, we define the total number of units, $|S|$, the total number of units with written invigilated exam, $\|S\|$, and the average USM, $\bar{S}$, of this subset by

$$|S| = \sum_{i \in S} u_i \,, \qquad \|S\| = \sum_{i \in S} w_i \,, \qquad \bar{S} = \frac{1}{|S|} \sum_{i \in S} u_i m_i \,.$$

The average USM ($\overline{USM}$) is then defined according to

$$\overline{USM} = \max_{S\,:\,|S| \geqslant 7 \text{ and } \|S\| \geqslant 4} \left(\bar{S}\right) \,.$$

In words, this amounts to considering all possible subsets of courses offered by the student that satisfy the overall course requirements and taking the maximum weighted (by number of units) average USM amongst all of these subsets.

D Qualitative Class Descriptors

D.1 Mini-Project Class Descriptors

Mini-projects will be assessed with reference to the following qualitative descriptors:

70–100 The candidate has demonstrated an excellent understanding of almost all of the material covered with a commensurate quality of presentation and has completed almost all of the assignment satisfactorily, further subdivided by:

- 90–100 The candidate has shown considerable originality and insight going well beyond the straightforward completion of the task set.
- 80–89 The work submitted shows a near-perfect completion of the task at hand, but does not meet the additional requirements above, or does but has some defects in presentation.
- 70–79 The work submitted is of a generally high order, but may have minor errors in content and/or deficiencies in presentation.

60–69 The candidate has demonstrated a good or very good understanding of much of the material, and has completed most of the assignment satisfactorily, without showing the level of excellence expected of the above USM range.

50–59 The candidate has demonstrated an adequate understanding of the material and an adequate ability to apply their understanding, without showing the level of understanding expected of the above USM range.

40–49 The work submitted, while sufficient in quantity, suffers from sufficient defects to show a lack of adequate understanding or ability to apply results.

30–39 The candidate, while attempting a significant part of the mini-project, has displayed a very limited knowledge or understanding at the level required.

0–29 The candidate has either attempted only a fragment of a mini-project or has shown an inadequate grasp of basic material.

D.2 Dissertation Class Descriptors

Dissertations will be assessed with reference to the following qualitative descriptors:

90–100 Work of potentially publishable standard, as evidenced by originality or insight. The work should show depth and accuracy, and should have a clear focus. It is likely to go beyond the normal MSc level.

80–89 Work in this range will be at the level of a strong candidate for a DPhil applicant. It will have depth, accuracy and a clear focus. It will show a strong command of material at least at the MSc level. It is likely to contain original material, which may take the form of new mathematical propositions, new examples, or new calculations.

70–79 The work submitted is of a generally high order, with depth, clarity and accuracy, but may have minor errors in content and/or deficiencies in presentation. It may contain original material, at least in the sense of new examples or calculations.

60–69 The candidate shows a good grasp of their subject, but without the command and clarity required for first class marks. Presentation, referencing and bibliography should be good, and the mathematics/statistics should have no more than minor errors.

50–59 The work shows an adequate grasp of the subject, but is likely to be marred by having material at too low a level, by serious or frequent errors, a high proportion of indiscriminate information, or poor presentation and references.

40–49 The candidate shows reasonable understanding of parts of the basic material, but reveals an inadequate competence with others. The material may be at too low a level. There are likely to be high levels of error or irrelevance, muddled or superficial ideas, or very poor writing style.

30–39 The candidate shows some limited grasp of at least part of the material.

0–29 Little evidence of understanding of the topic. The work is likely to show major misunderstanding and confusion.