Examiners' Report
Oxford Masters in Mathematical Sciences (OMMS)
Trinity Term 2023

Part I

A. STATISTICS

- **Numbers and percentages in each class.**
  See Table 1, page 1.

- **Numbers of vivas and effects of vivas on classes of result.**

  Not applicable.

- **Marking of scripts.**

  All Mathematics examination scripts were, as is the normal practice, single-marked according to carefully checked model solutions and a pre-defined marking scheme which is closely adhered to. The Mathematics dissertations and mini-projects were double-marked. A comprehensive independent checking procedure is also followed. (See the Part C Mathematics Examiner Report for details.)

  For information on steps taken in response to the Marking and Assessments Boycott (MAB) please see Part I, Section B.

Table 1: Numbers in each class

	Number					Percentages %				
	2023	2022	2021	2020	2019	2023	2022	2021	2020	2019
Distinction	22	24	21	27	16	46.81	42.86	40.38	65.85	50.0
Merit	11	18	9	7	6	23.40	32.14	17.31	17.07	18.8
Pass	13	13	21	5	9	27.66	23.21	40.38	12.2	28.1
DDM	-	-	-	2	-	-	-	-	4.88	-
Fail	1	1	1	0	1	2.13	1.79	1.92	0	3.1
Total	47	56	52	41	32	100	100	100	100	100

B. Strike Action

As a result of the marking and assessment boycott (MAB) alternative marking arrangements were organized for three dissertation topics and the following three exams. - C2.3 Representation Theory of Semisimple Lie Algebras - C3.1 Algebraic Topology - C4.1 Further Functional Analysis Substitute assessors were recruited for each exam papers, whilst this delayed marks-sharing all scripts were received and script checked in time for the final board. The papers were reviewed and scaled in full by the examiners during the meeting. All replacement assessors were experienced markers with a suitable level of expertise in the subject matter.

Dispensation was granted from EPS and the Proctors for the three affected dissertation topics to be single marked, a process which breaks from typical convention with regards to project marking but is acceptable under the university guidance on mitigating steps against the MAB. All dissertations were moderated by Prof Gaffney and Prof Lotay and the exam board were welcomed to review the agreed marks.

C. Changes in examining methods and procedures currently under discussion or contemplated for the future

None.

D. Notice of examination conventions for candidates

The first notice to candidates was issued on 22nd February 2023 and the second notice on 24th April 2023. These contain details of the examinations and assessments.

All notices and the examination conventions for 2023 are available online at:

https://www.maths.ox.ac.uk/members/students/undergraduate-courses/teaching-and-learning/part-c-students/examinations-and-assessments/part-c-and-omms

Part II

A. General Comments on the Examination

The examiners would like to convey their grateful thanks for their help and cooperation to all those who assisted with this year's examination, either as assessors or in an administrative capacity. The chairman would like to thank Anwen Amos, Clare Sheppard, Charlotte Turner-Smith, Waldemar Schlackow, Matt Brechin, Jonathan Whyman, Hannah Harrision and the rest of the academic administration team for their support of the Part C and OMMS examinations.

In addition the internal examiners would like to express their gratitude to Prof Alan Champneys, Prof James Robinson and Prof Dario Spaño for carrying out their duties as external examiners in a constructive and supportive way during the year, and for their valuable input at the final examiners' meetings.

B. Equality and Diversity issues and breakdown of the results by gender

Table 2, page 4 shows percentages of male and female candidates for each class of the degree.

Table 2: Breakdown of results by gender

Class	Number														
	2023			2022			2021			2020			2019		
	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total
Distinction	4	18	22	1	23	24	0	21	21	5	22	27	4	12	16
Merit	2	9	11	1	17	18	4	5	9	3	4	7	1	5	7
Pass	6	7	13	6	7	13	4	17	21	1	4	5	3	6	9
DDM	-	-	-	-	-	-	-	-	-	0	2	2	-	-	-
Fail	1	0	1	0	1	1	1	0	1	0	0	0	0	1	1
Total	13	34	47	8	48	56	9	43	52	9	32	41	8	24	32
Class	Percentage														
	2023			2022			2021			2020			2019		
	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total
Distinction	30.77	52.94	46.81	12.5	47.92	42.86	0	48.84	48.84	55.56	68.75	62.16	50.0	50.0	50.0
Merit	15.38	26.47	23.40	12.5	35.42	32.14	44.44	11.63	28.04	33.33	12.5	22.92	12.5	20.8	18.8
Pass	54.55	20.59	27.66	75	14.58	23.21	44.44	39.53	41.99	11.11	12.5	11.81	37.5	25.0	28.1
DDM	-	-	-	-	-	-	-	-	-	0	6.25	6.25	-	-	-
Fail	7.69	0	2.13	0	2.08	1.79	11.11	0	11.11	0	0	0	0	4.2	3.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

C. Detailed numbers on candidates' performance in each part of the exam

See Table 3, page 4 for the number of candidates taking each Mathematics paper, together with statistics for the raw marks (average and standard deviation), and USMs (average and standard deviation) attained on each paper by this cohort. All papers listed are units except the Mathematics Dissertation, which is a double unit. The total maximum raw marks for a unit is 50 whilst the USMs are scaled to a maximum of 100. In accordance with University guidelines, statistics are not given for papers where the number of candidates was five or fewer in the public version of this report.

Table 3: Statistics by paper

Paper	Number of Candidates	AvgRaw	StdevRaw	AvgUSM	StdevUSM
C3.1	7	29.86	9.25	69	12.21
C3.3	7	31.14	5.21	63.43	5.8
C5.5	7	31.86	6.79	63.71	5.15
C6.1	13	32.15	9.47	62.62	10.1
C6.2	11	31.36	10.67	67.18	13.72
C7.7	6	39.83	4.62	74	8.67
C8.1	7	29.71	4.68	71.43	5.91
C8.3	9	31.22	6.55	64.44	9.33
C8.4	10	33.2	5.9	68.3	6.18
SC2	11	32.18	6.42	65.45	6.22
SC4	10	27.8	6.65	64	6.99
SC9	7	29.43	5.97	68.86	6.52
SC10	6	35.17	4.67	67	4.47

Table 3: Statistics by paper (USM only assessments)

Paper	Number of Candidates	AvgUSM	StdevUSM
C3.9	10	71.5	12.46
C5.4	17	71.65	5.11
C6.5	13	70.15	4.69
CCD	43	74.47	7.5
SC8	9	60.78	28.12

D. Recommendations for Next Year's Examiners and OMMS Supervisory Committee

E. Comments on sections and on individual questions

See reports from Mathematics examiners.

G. Names of members of the Board of Examiners

Internal Examiners:
Prof. Jason Lotay (Chair)
Prof. Robin Evans
Prof. Victor Flynn
Prof. Eamonn Gaffney
Prof. Geoff Nicholls
Prof. Qian Wang
Prof. Andy Wathen

External Examiners:
Prof. Alan Champneys
Prof. James Robinson
Dr. Dario Spanó