

**Minutes of the First Meeting of the
Directors of Studies in Mathematics
for 2007/08**

**Held on Tuesday 13th November 2007 at 2pm
in the Plumb Auditorium, Christ's College**

Present: Robert Hunt (Christ's, Chairman), Christopher Tout (Churchill), Maciej Dunajski (Clare), Adriana Pesci (Downing), Paul Russell (Emmanuel), Jonathan Evans (Gonville & Caius), Simon Wadsley (Homerton), Stephen Siklos (Jesus), Keith Carne (King's), Orsola Rath Spivack (Lucy Cavendish), Stuart Martin (Magdalene), Jonathan Dawes (Newnham), Dennis Barden (Pembroke), Alexei Shadrin (Pembroke), Julia Gog (Queens'), Irena Borzym (St Catharine's), Richard Samworth (St John's), Nikos Nikiforakis (Selwyn), Laurent Storoni (Sidney Sussex), Hugh Osborn (Trinity) and Tadashi Tokieda (Trinity Hall)

1. Apologies

Apologies were received from Kostya Feldman (Christ's), Chris Brookes (Corpus Christi), Mark Spivack (Emmanuel), Rachel Camina (Fitzwilliam), Ross Lawther (Girton), Sophia Demoulini (Jesus), Houshang Ardavan (New Hall), Matthias Dörrzapf (St John's) and Jack Button (Selwyn).

2. Minutes of the meeting held on 1st May 2007

The minutes were accepted with two corrections:

- (i) The date should read 1st May 2007, not 13th November 2006.
- (ii) In item 11 ("Applied Maths") the phrase "no specific recommendations were made" should be replaced by "no specific recommendations were **agreed.**"

3. Matters arising

There were no matters arising not already listed on the agenda.

4. Review of recent and forthcoming changes to the Tripos

Non-examinable Mechanics course in Part IA

This course seemed to have been successful and was welcomed.

Groups; Vectors & Matrices

Some Directors of Studies had found that the example sheets for the *Groups* course were rather difficult in places compared to the sheets for *Algebra and Geometry*. This was thought to be potentially off-putting for freshers, and it was suggested that more questions should be starred. (In comparison, the *Differential Equations* material was considered to be easy and not sufficiently stretching; it was suggested that different material that does not mesh so much with A-levels would be helpful, such as phase space analysis.) No comments were made on *Vectors & Matrices*.

Concepts in Theoretical Physics

Directors of Studies looked forward to this new course.

Forthcoming changes: Dynamics & Relativity; Easter Term courses; Part IB

Several Directors of Studies were concerned that the *Dynamics & Relativity* course might be overloaded with material. One knock-on

effect of the changes would be that the presentation of applied mathematics in Part IB might suffer because of a large number of 16-lecture courses (as opposed to 24-lecture ones: at present, *Quantum Mechanics* and *Special Relativity* can be considered as a single 24-lecture course). The applied material can seem too bitty, and students prefer 4 long examination questions for each course.

5. Part III

Funding

A paper on the difficult situation regarding future funding for Part III students was received. It was agreed that the University's primary aim should be to persuade DIUS that Part III requires a special exemption, but it was recognised that this might not be possible. There was no easy fix for the problem.

It was agreed that current Part II students who wish to continue to Part III should be advised that they might not be able to graduate this year. They should also write to their LEAs stating that they intend to continue to a fourth year of their degree. The status of Part III Mathematics would then be similar to that of Part III Physics; but there might be difficulties regarding the different status of students coming into Part III from outside Cambridge. Would Part III become a Master's course for both categories of student?

There might also be a need for more uniformity of entry criteria to Part III; at present some Colleges require a First at Part II while others allow even a 2.ii.

Changes to essay deadlines

A paper stating the Faculty Board's recent change to Part III essay deadlines was received. The wording referred to the "end" of a particular Friday and the Chairman reported that he had been told at a meeting of the Faculty Board that essays would in fact be accepted if they had been delivered to the Faculty Office by the time the Office opened on Monday morning.

Plagiarism statement

The Faculty's *Statement on Plagiarism for Part III and Graduate Courses* was received. It was suggested that more information on acknowledgement (or otherwise) of lecture notes would be helpful: in general such acknowledgement should be unnecessary.

It was thought that the statement might be adapted for use with CATAM; the section entitled "Collaboration" would need to be changed. Directors of Studies were asked to give publicity to the issue of plagiarism in CATAM to their students.

6. Admissions

Application statistics

A paper was received giving statistics on applications to the University in 2006 and 2007 broken down by subject. Applications for Mathematics had increased from 2006 to 2007 by 2% (insignificant), but there had been a significant drop in applications for Education with Mathematics (as part of a general decline in applications for Education Studies). There were questions about the qualifications of students taking Education with Mathematics; Directors of Studies thought that they should normally be required to obtain at least 90% in A-level modules and to take STEP.

It was agreed that Geoff Parks should be asked to supply 10 years' worth of data for the meeting of Directors of Studies in Michaelmas 2008.

Deselection criteria

Dr Russell reported that the Senior Tutor of Emmanuel was considering deselection of a significant number of home students before interview. A survey had revealed that most Colleges deselect few or no candidates, and Dr Siklos confirmed that if the situation were different he would be aware of it. Colleges should be particularly careful when deselecting candidates who had made Open Applications.

The meeting considered whether the Colleges or the Faculty should publish guidelines on what results are obtained at A-level and STEP by successful candidates, but firmly decided against this idea. It was agreed, however, that it might be useful for some investigations to be carried out into whether GCSE results or A-level module scores are good predictors of performance in the Mathematical Tripos.

Admissions Forum guidance on pool procedures

The guidance (taken from the Undergraduate Admissions Handbook for 2007/08) was received. There was discussion of items 2.7.3.1(iii)(d) (declaration of need) and 2.7.3.1(iii)(h) (double choices for women's Colleges). In both cases it was agreed that the next pool meeting in Mathematics should use the mechanism stated in the guidance (with women's Colleges getting both of their choices at the same time in each round), but that the issues should be revisited before the next admissions round.

7. Tripos results by gender

A confidential report was received. The differences in performance by gender were regarded as shocking, and strong support was given to further investigation by the Faculty Board.

8. Teaching Committee report on Tripos examinations 2007

The report was received.

The report recommended that betas on Section I questions should be distinguished from betas on Section II questions in the marks lists. Some Directors of Studies did not think that this was necessary or even appropriate, given that no distinction is made in the *Schedules* booklet. Some thought it was inappropriate even for Examiners to take it into account, for the same reason. However, if such a distinction were to be made, then perhaps the merit mark (and any quantitative primary classification criteria) should include that distinction.

There was disagreement over the ways that Examiners should use the classification criteria. Some Directors of Studies felt that Examiners should continue to take as much into account as possible regarding individual performances. Others felt that Examiners need to be more consistent in their decisions in future and that quantitative primary classification criteria might help.

Regarding the percentage of thirds awarded by the Faculty, there was some worry that Mathematics might be out of line with other subjects. It was suggested that the Faculty Board should check whether this is the case, particularly for related subjects such as Physics.

9. Percentage marks on transcripts

This item was (accidentally) deferred to the next meeting.

10. Induction meeting

A report from Dr Siklos was received and welcomed.

11. STEP 2007 coordinators' report

A report from Dr Siklos was received and welcomed. It was noted that the decrease in the numbers of students admitted in October 2007 was mostly due to a particularly low number of female students being admitted.

12. List of CTOs

The current Faculty list of College Teaching Officers was received. Colleges were urged to correct any errors or omissions by contacting the Faculty Office.

13. Any Other Business

There was no other business.

14. Date of next meeting

The next meeting would be arranged for the fifth week of Lent Term.