

CAMBRIDGE UNIVERSITY REPORTER

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UNIVERSITY OF
CAMBRIDGE

NOTICES

Calendar

1 November, *Tuesday*. All Saints' Day. Scarlet Day.

6 November, *Sunday*. Commemoration of Benefactors. Scarlet Day. Preacher before the University at 11.15 a.m., Reverend Dr Jeremy Morris, Master of Trinity Hall (Lady Margaret's Preacher).

8 November, *Tuesday*. Discussion at 2 p.m. in the Senate-House (see below).

9 November, *Wednesday*. Michaelmas Term divides.

Discussions (at 2 p.m.)

8 November

22 November

6 December

Congregations

26 November, *Saturday* at 2 p.m.

Discussion on Tuesday, 8 November 2016

The Vice-Chancellor invites those qualified under the regulations for Discussions (*Statutes and Ordinances*, p. 103) to attend a Discussion in the Senate-House on Tuesday, 8 November 2016, at 2 p.m. for the discussion of:

1. Second-stage Report of the Council, dated 17 October 2016, on the construction of an off-site storage facility for low-use library material (*Reporter*, 6440, 2016–17, p. 50).

Office of Commissary

In accordance with Statute A I 12 the Chancellor has by letters patent appointed The Right Honourable Lord Judge PC, Honorary Fellow of Magdalene College, formerly Lord Chief Justice of England and Wales, as Commissary from 1 November 2016.

Elections to the Council and the Board of Scrutiny

3 October 2016

Council of the University

The Vice-Chancellor gives notice that an election is to be held of eight persons to serve as members of the Council for four years from 1 January 2017. Members are to be elected in the following classes under Statute A IV 2:

- (a) two from among the Heads of Colleges;
- (b) two from among the Professors and Readers;
- (c) four from among the other members of the Regent House.

The Council is the principal executive and policy-making body of the University. It has general responsibility for the administration of the University, for defining its mission, for the planning of its work, and for the management of its resources. The Council deals with relations between the University and the Colleges, and conducts negotiations with outside bodies on many matters (other than those relating directly to the educational and research programmes of the University, which are dealt with on its behalf by the General Board of the Faculties). It is responsible for the appointment or nomination of certain members of internal and external bodies, and for many student matters (excluding the selection of entrants, which is a College concern). Further information about the Council is available to members of the University on the Council website (<https://www.governance.cam.ac.uk/committees/council/>). Questions about its work can be addressed to the Registry by emailing registry@admin.cam.ac.uk.

Duties and responsibilities of Council members

Council membership offers a particularly rewarding and demanding experience. The University is both an exempt charity,¹ and a corporation established by common law. As such, Council members are both charity trustees of the University and, effectively, its corporate directors. They have associated legal responsibilities and duties, and are required to promote the interests of the University and act with integrity, care, and prudence.

It is strongly recommended that those considering standing for nomination review the Handbook for Members of the Council, which sets out the Council's primary responsibilities. Section 4 of the Handbook provides advice and guidance to members of Council on their legal and other responsibilities. The Handbook is available to members of the University to download from the bottom of the Council web page at <https://www.governance.cam.ac.uk/committees/council/handbook-2016/>. Potential nominees might also wish to familiarize themselves with the key aspects of the University's *Statutes and Ordinances* (<http://www.admin.cam.ac.uk/univ/so/>), the most recent Budget and Allocations Report (*Reporter*, 6426, 2015–16, p. 525), and the Annual Report and Financial Statements (*Reporter*, 6408, 2015–16, p. 226).

¹ The University has charitable status but is exempt from the statutory requirement which otherwise obliges a charity to register with the Charity Commission. HEFCE is the principal regulator of the University as regards its compliance with its legal obligations in exercising control and management of its administration as a charity.

Further useful information is provided by HEFCE (<http://www.hefce.ac.uk/reg/charityreg/>), and the Charity Commission (<https://www.gov.uk/government/publications/the-essential-trustee-what-you-need-to-know-cc3>). This information includes details of the extent of a charity trustee's personal liability. Instances of personal liability are rare and unlikely to occur, providing trustees act honestly, prudently, in good faith, and in the best interests of the University, and in compliance with legislation and the University's governing documents. Nonetheless, it is important for nominees to recognize and accept the obligations that Council membership would confer upon them.

Board of Scrutiny

The Vice-Chancellor gives notice of an election to fill two casual vacancies on the Board of Scrutiny. Members are to be elected in the following classes under Statute A VII:

- one member in class (c)(i) (a person who has been a member of the Regent House for not more than ten years on 1 October 2017), to serve with immediate effect until 30 September 2019;
- one member in class (c)(ii) (a member of the Regent House), to serve with immediate effect until 30 September 2017.

The Board of Scrutiny consists of:

- (a) the Proctors;
- (b) the two Pro-Proctors nominated by the Colleges;
- (c) eight members of the Regent House elected by the Regent House.

Under the provisions of Statute A VII 4, no person may be a member of the Board of Scrutiny who is a member of the Council, the General Board, or the Finance Committee of the Council, or who holds any of the University offices of Chancellor, Vice-Chancellor, Pro-Vice-Chancellor, University Advocate, Deputy University Advocate, Registrary, Assistant Registrary, or Secretary of a School. The Statute further prohibits from membership holders of offices with primarily administrative duties designated by Ordinance: Directors and Deputy Directors in the Unified Administrative Service and Assistant Treasurers have been designated as such prohibited offices. A retiring member of the Board who has served for four or more consecutive years is not eligible to serve again as a member in class (c) until one year has elapsed after the end of her or his previous period of service.

If no nominations are received in either case in accordance with the timetable below, the Council shall be asked whether it wishes to appoint a member to any vacant place or for another election to be held, in accordance with Regulation 3 of the regulations for the election of members of the Board (*Statutes and Ordinances*, p. 112).

Further information about the Board of Scrutiny can be found in the *Statutes and Ordinances* as noted above, on the Board's website (<http://www.scrutiny.cam.ac.uk/>), and obtained from Dr Lydia Drumright (email: lnd23@cam.ac.uk), Chair of the Board.

Nomination procedure and election timetable

The nomination procedure and election timetable for the elections to the Council and the Board of Scrutiny is as follows.

In order to be eligible, a candidate for election in each case must be nominated on a paper sent to the Vice-Chancellor at the Old Schools so as to be received not later than **12 noon on Friday, 18 November 2016**. The nomination paper must contain (a) a statement signed by two members of the Regent House, nominating the candidate for election and specifying the class in which he or she is nominated, and (b) a statement signed by the candidate certifying that he or she consents to be so nominated. Forms to facilitate the nomination process are available on the governance website (see <https://www.governance.cam.ac.uk/ballots/rh/Pages/Nomination-forms.aspx>). The candidate is also required to provide a statement of her or his *curriculum vitae* by the same date (see below). No one may be nominated for election in more than one class. The Council has agreed to make known its view that two periods of four years should normally be regarded as the maximum length of continuous service for elected members.

The Vice-Chancellor would be obliged if nominations could be delivered to the Registrary in the Old Schools during office hours. Documents which are submitted by fax to 01223 (3)32332 or scanned documents containing a signature or signatures sent to the Registrary at Registrary@admin.cam.ac.uk will also be accepted. Nominations will be published on the Senate-House Noticeboard as they are received; the complete list of nominations will be published in the *Reporter* on Wednesday, 23 November 2016.

In accordance with the regulations governing the election (*Statutes and Ordinances*, p. 110), each person nominated for election is required to send to the Registrary, not later than 12 noon on Friday, 18 November 2016, a statement of her or his *curriculum vitae* for distribution to members of the Regent House with the voting papers. It is suggested that such a statement should be of not more than 500 words in length, and that it should cover the following points:

- the candidate's present position in the University;
- previous posts held, whether in Cambridge or in other universities or outside the university system, with dates;
- a note of the candidate's particular interests within the field of University business.

The election will be conducted by ballot under the Single Transferable Vote regulations. Online voting will open at 10 a.m. on Monday, 28 November 2016 and close at 5 p.m. on Thursday, 8 December 2016. Hard-copy voting papers and supporting materials will be distributed not later than Monday, 28 November 2016 to those who opted by 3 November 2016 to vote on paper; the last date for the return of voting papers will be **5 p.m. on Thursday, 8 December 2016**.

Appointment to the office of Pro-Vice-Chancellor for Enterprise and Business Relations

24 October 2016

The Council wishes to make an appointment to the office of Pro-Vice-Chancellor, following the resignation of Professor Nigel Slater whose portfolio was Enterprise and Regional Affairs. The Pro-Vice-Chancellorship will be tenable for a period of up to three years in the first instance from 1 January 2017. The Council expects to make this appointment at its meeting on 12 December 2016. The Council will be advised by a Nominating Committee chaired by the Vice-Chancellor and with the following members: the Vice-Chancellor (in the Chair), Professor R. J. Anderson, Professor Dame Shirley Pearce, Professor I. H. White, Professor P. M. Allmendinger, and Professor A. L. Fowden. As required by the relevant regulation, the Vice-Chancellor elect, Professor Stephen Toope, will be a member of the Committee (by correspondence).

Role of the Pro-Vice-Chancellors

The general role of the Pro-Vice-Chancellors is to take forward strategy and policy development and to support the Vice-Chancellor in providing institutional leadership to the University, particularly in their areas of responsibility. The Pro-Vice-Chancellors work closely with the Heads of Schools, the Registry, and his senior colleagues. Pro-Vice-Chancellors are normally appointed from academic officers respected within the collegiate University.

In addition to the Pro-Vice-Chancellorship held by Professor Slater, the University has four other Pro-Vice-Chancellors with the following portfolios:

- Planning and Resources (Professor Duncan Maskell)
- Education (Professor Graham Virgo)
- International and Institutional Relations (Professor Eilis Ferran)
- Research (Professor Chris Abell)

Professor Maskell is the Senior Pro-Vice-Chancellor, the senior member of the team of Pro-Vice-Chancellors with the duties of leading and co-ordinating their work. Professor Maskell attends meetings of the Nominating Committee and will play a full role in the search.

The current vacancy

The Council considers it of the highest importance that the person appointed to succeed Professor Slater will bring forward and lead a strategy to enhance and develop the University's engagements and partnerships with industry and commerce, and the wider enterprise economy in the University's immediate region. To this end, the successful candidate will have a record of achievement in business and enterprise, and be able to represent the University regionally, nationally, and internationally. She or he will work closely in particular with her or his fellow Pro-Vice-Chancellors and with the Heads of Schools. The University is creating a strengthened professional structure to support the Pro-Vice-Chancellor within the Unified Administrative Service, and the successful candidate will have the opportunity to bring their expertise to bear in ensuring that the necessary resources are available for this purpose.

To reflect the emphasis placed on the importance of this principal focus for the Pro-Vice-Chancellorship, the role will be titled Pro-Vice-Chancellor (Enterprise and Business Relations). The University remains committed to its City and regional responsibilities and leadership. It will ensure that these are discharged and deepened by widening the responsibility for them throughout the senior leadership team, including within the Office of Communications and External Relations.

Terms of appointment

The Pro-Vice-Chancellor will be appointed for up to 80% of full time. The stipend payable for the office of Pro-Vice-Chancellor is point 87 of the single salary scale: £120,584 (as at 1 August 2016) *pro rata*.

Expressions of interest and further information

The Nominating Committee welcomes expressions of interest by and suggestions of suitable persons who are a senior member in the University or a College and have extensive experience in higher education and a demonstrable interest and significant experience in the strategic and policy areas listed above.

Expressions of interest, including a *curriculum vitae* and covering letter, or suggestions of those who should be considered for this role, should be communicated to the Vice-Chancellor, University Offices, The Old Schools, Cambridge, CB2 1TN, by 4 November 2016. The Vice-Chancellor, Professor Duncan Maskell (the Senior Pro-Vice-Chancellor), and the Registry may also be consulted for further information.

Election of a member of the Council's Finance Committee in class (b)

26 October 2016

A vacancy will arise on the Council's Finance Committee for a member of the Regent House, elected by representatives of the Colleges, to serve for three years from 1 January 2017.

The election is conducted in accordance with the Single Transferable Vote regulations. Voting is by postal ballot.

Nominations should be made in writing to the Head of the Registry's Office, University Offices, The Old Schools, Cambridge, CB2 1TN, and must include a statement by the person nominated that he or she is willing to serve on the Finance Committee. Nominations and statements should be made by 12 noon on Monday, 14 November 2016. Nominations should be supported by the signatures of two members of the Regent House. Documents which are submitted by fax to 01223 (3)32332 or scanned documents containing a signature or signatures sent to kirsty.allen@admin.cam.ac.uk will also be accepted.

If a ballot is necessary, papers will be dispatched by Thursday, 24 November 2016, for return by 12 noon on Monday, 5 December 2016.

Discussion of a topic of concern to the University: Investment responsibility

26 October 2016

The Registry gives notice that he has received a request for the discussion of the following topic of concern to the University:

That the Regent House, as the governing body of the University, consider the report of the ACBELA Working Group on Investment Responsibility published in June 2016,¹ and in particular consider a policy of divestment from fossil fuels.

The request is supported by the following members of the Regent House:

C. ALAGHBAND-ZADEH	D. E. A. CURTIS	L. P. KING
H. AZÉRAD	R. N. DUSCHINSKY	T. J. MILEY
C. J. M. BELL	R. J. E. HIGHAM	S. M. OOSTHUIZEN
D. S. A. BELL	A. J. HUTCHINGS	J. E. VIÑUALES
C. BRASSETT	A. S. JEFFREY	D. G. WHITEBREAD
J. L. CADDICK	A. J. KABLA	

The Council has agreed that this topic will be included among the matters for consideration at the Discussion to be held in the Senate-House at 2 p.m. on Tuesday, 22 November 2016.

¹ See *Reporter*, 2015–16, 6430, p. 636.

VACANCIES, APPOINTMENTS, ETC.

Vacancies in the University

A full list of current vacancies can be found at <http://www.jobs.cam.ac.uk/>.

Deputy Head of the Graduate Admissions Office in the Academic Division; salary: £28,982–£37,768; closing date: 14 November 2016; further details: <http://www.jobs.cam.ac.uk/job/11853>; quote reference: AK10479

The University values diversity and is committed to equality of opportunity.

The University has a responsibility to ensure that all employees are eligible to live and work in the UK.

EVENTS, COURSES, ETC.

Announcement of lectures, seminars, etc.

The University offers a large number of lectures, seminars, and other events, many of which are free of charge, to members of the University and others who are interested. Details can be found on individual Faculty, Department, and institution websites, on the What's On website (<http://www.admin.cam.ac.uk/whatson/>), and on Talks.cam (<http://www.talks.cam.ac.uk/>).

Brief details of upcoming events are given below.

<i>Institute of Continuing Education</i>	<i>Madingley conversations</i> (a new series of public lectures by leading political figures); inaugural series of talks on: <i>The future of lifelong learning</i> , from 7 p.m. at Madingley Hall: 3 November: Sir Simon Hughes 10 November: Baroness Julie Smith 24 November: Gordon Marsden MP	http://www.ice.cam.ac.uk/what-we-do/madingley-conversations
<i>Sociology</i>	<i>Racial domination: revisiting the American case:</i> a series of public lectures by Professor Loïc Wacquant, Professor of Sociology at the University of California, Berkeley, and Pitt Professor in the Department of Sociology, 2016–17, at 5 p.m. on: 16 November: <i>Race as symbolic violence and public dishonour</i> 17 November: <i>Racialized slavery and racial terrorism</i> 18 November: <i>The ghetto and the prison</i> 28 November: <i>Peculiar institutions: four centuries of race-making in the United States</i>	http://talks.cam.ac.uk/show/index/19699

NOTICES BY FACULTY BOARDS, ETC.**Annual meetings of the Faculties***Clinical Medicine*

The Chair of the Faculty Board of Clinical Medicine gives notice that the Annual Meeting of the Faculty will be held at 2 p.m. on Monday, 14 November 2016, in the Committee Room, School of Clinical Medicine (Room 202, Level 2, Bay 13). The business of the meeting will include a report by the Chair and the election of members of the Faculty Board of Clinical Medicine in class (c) in accordance with Regulation 6 of the General Regulations for Faculties (*Statutes and Ordinances*, p. 584) and Regulation 1(c) of the General Regulations for the Constitution of the Faculty Boards (*Statutes and Ordinances*, p. 585), to fill three vacancies. Two will be filled to 31 December 2020 by holders of an NHS appointment at Consultant level, who are certified by the Faculty Board to give instruction to clinical medical students; and one will be filled to 31 December 2020 by a University Officer in the Faculty who is not a Professor or Associate Lecturer.

Nominations for these elections, signed by the proposer who must be a member of the relevant constituency mentioned above, and by the nominee indicating willingness to serve if elected; and notice of any other business, should be sent to: The Secretary of the Faculty Board of Clinical Medicine, School of Clinical Medicine, Box 111, Cambridge Biomedical Campus, Cambridge, CB2 0SP, to arrive no later than 12 noon on Friday, 4 November 2016.

Economics

The Chair of the Faculty Board of Economics gives notice that the Annual Meeting of the Faculty will be held at 2 p.m. on Monday, 14 November 2016, in the Meade Room, Austin Robinson Building, Sidgwick Avenue. One of the items of business will be to elect three members of the Faculty Board in class (c) (two members to serve for four years from 1 January 2017 and one member to serve for three years from 1 January 2017), in accordance with Regulation 1 of the General Regulations for the Constitution of the Faculty Boards (*Statutes and Ordinances*, p. 585).

Nominations in writing, signed by the proposer and seconder, together with an indication of the nominee's willingness to serve, should reach the Secretary, Marie Butcher (email: mab30@cam.ac.uk), Faculty of Economics, Austin Robinson Building, Sidgwick Avenue, by 12 noon on Tuesday, 8 November 2016. It would be helpful if notice of any other business that members wish to be discussed were sent in writing to the Secretary by 10 a.m. on Friday, 4 November 2016.

Mathematical Tripos, Part III, 2017

The Faculty Board of Mathematics gives notice that, in accordance with Regulations 16 and 17 for the Mathematical Tripos (*Statutes and Ordinances*, p. 369), there will be set in 2017 if candidates desire to present themselves therein, a paper in each of the subjects in the following list. The duration of the paper is shown beside it.

<i>No.</i>	<i>Subject</i>	<i>Duration</i>
102	Lie algebras and their representations	3 hours
103	Representation theory	3 hours
105	Analysis of partial differential equations	3 hours
106	Functional analysis	3 hours
107	Elliptic partial differential equations	3 hours
108	Topics in ergodic theory	3 hours
109	Combinatorics	2 hours
113	Algebraic geometry	3 hours
114	Algebraic topology	3 hours
115	Differential geometry	3 hours
119	Category theory	3 hours
121	Topics in set theory	3 hours
125	Elliptic curves	3 hours
128	Algebras	3 hours
129	Introduction to additive combinatorics	2 hours
130	Ramsey theory	2 hours
131	Riemannian geometry	3 hours
132	Riemann surfaces and Teichmüller theory	3 hours
133	Geometric group theory	2 hours
134	Linear systems	2 hours
135	Logic	3 hours
136	Local fields	3 hours
137	Modular forms and L-functions	3 hours
201	Advanced probability	3 hours
202	Stochastic calculus and applications	3 hours

<i>No.</i>	<i>Subject</i>	<i>Duration</i>
203	Schramm-Loewner evolutions	2 hours
205	Modern statistical methods	3 hours
206	Applied statistics	3 hours
207	Biostatistics	3 hours
210	Topics in statistical theory	2 hours
214	Percolation and random walks on graphs	2 hours
215	Mixing times of Markov chains	2 hours
216	Bayesian modelling and computation	3 hours
217	Gaussian processes	2 hours
301	Quantum field theory	3 hours
302	Symmetries, fields, and particles	3 hours
303	Statistical field theory	2 hours
304	Advanced quantum field theory	3 hours
305	The standard model	3 hours
306	String theory	3 hours
307	Supersymmetry	2 hours
308	Classical and quantum solitons	2 hours
309	General relativity	3 hours
310	Cosmology	3 hours
311	Black holes	3 hours
312	Advanced cosmology	3 hours
314	Astrophysical fluid dynamics	3 hours
315	Extrasolar planets: atmospheres and interiors	3 hours
316	Planetary system dynamics	3 hours
317	Structure and evolution of stars	3 hours
320	Galactic astronomy and dynamics	3 hours
321	Dynamics of astrophysical discs	2 hours
322	Binary stars	2 hours
324	Quantum computation	2 hours
326	Inverse problems in imaging	3 hours
327	Distribution theory and applications	2 hours
328	Boundary value problems for linear PDEs	2 hours
329	Slow viscous flow	3 hours
331	Hydrodynamic stability	3 hours
332	Fluid dynamics of the solid Earth	3 hours
336	Perturbation methods	2 hours
337	Convection and magnetoconvection	2 hours
338	Optical and infrared astronomical telescopes and instruments	2 hours
339	Topics in convex optimization	2 hours
340	Topics in mathematics of information	3 hours
341	Numerical solution of differential equations	3 hours
342	Biological physics and complex fluids	3 hours
343	Quantum fluids	2 hours
344	Theoretical physics of soft condensed matter	2 hours
345	Environmental fluid dynamics	2 hours

The Faculty Board reminds candidates and Tutors that requests for papers to be set on additional subjects should be sent to the Secretary of the Faculty Board, c/o the Undergraduate Office, Faculty of Mathematics, Wilberforce Road (email: faculty@maths.cam.ac.uk) not later than 9 November 2016.

Natural Sciences Tripos, Part III (Astrophysics) and Master of Advanced Studies in Astrophysics, 2016–17

The Director of the Institute of Astronomy gives notice that the following courses will be available for examination in 2017:

Three-unit lecture courses

These papers, from Part III of the Mathematical Tripos, will be taken in June. Each will be examined by a written paper of three hours' duration.

- 301. Quantum field theory
- 309. General relativity
- 310. Cosmology
- 311. Black holes
- 312. Advanced cosmology
- 314. Astrophysical fluid dynamics
- 315. Extrasolar planets: atmospheres and interiors
- 316. Planetary system dynamics
- 317. Structure and evolution of stars
- 320. Galactic astronomy and dynamics

Two-unit lecture courses

These papers, from Part III of the Mathematical Tripos, will be taken in June and will be examined by a written paper of two hours' duration.

- 321. Dynamics of astrophysical discs
- 322. Binary stars
- 337. Convection and magnetoconvection
- 338. Optical and infrared astronomical telescopes and instruments

These papers, from Part III of the Natural Sciences Tripos (Physics), will be taken at the start of the Lent Term and will be examined by a written paper of two hours' duration. Each paper will consist of three questions of which candidates will be required to answer two; all questions carry equal weight.

- Paper 1/PP. Particle physics
- Paper 1/PEP. Physics of the earth as a planet
- Paper 1/RAC. Relativistic astrophysics and cosmology

One-unit lecture courses

These papers, from Part III of the Natural Sciences Tripos (Physics), will be taken at the start of the Easter Term and will be examined by a written paper of one and a half hours' duration. Each paper will consist of three questions of which candidates will be required to answer two; all questions carry equal weight.

- Paper 2/FSU. Formation of structure in the universe
- Paper 2/FOA. Frontiers of observational astrophysics

It is recommended that candidates take the equivalent of four 3-unit lecture courses. At least nine units should be selected from the recommended list of courses above. Up to three units may be chosen freely from Part III of the Mathematical Tripos (and need not be relevant to astrophysics), or the allowed list of courses from Part III Physics in the Natural Sciences Tripos, or a mixture of both. The courses offered in Part III of the Mathematical Tripos vary from year to year and may be found in their lecture listing at https://www.maths.cam.ac.uk/system/files/partiiiweb_8.pdf. The allowed courses from Part III Physics may be found at http://www.ast.cam.ac.uk/students/undergrad/part_iii/lectures/. Students may be examined in up to a maximum of fifteen units in addition to their compulsory project. Students should consult the Part III Course Co-ordinator for guidance about choice of courses.

Natural Sciences Tripos, Part III (Physics) and Master of Advanced Studies in Physics, 2016–17

The Head of the Department of Physics gives notice that the following Major Topics, Minor Topics, and types of further work will be available for examination in 2017.

Major Topics

These papers will be taken at the start of the Lent Term. Each Major Topic will be examined by a written paper of two hours' duration. Each paper will consist of three questions, of which candidates will be required to answer two; all questions carry equal weight. Candidates are required to take a minimum of three papers. The titles of the papers are as follows:

Paper 1/AQC.	Advanced quantum condensed matter physics
Paper 1/BIO.	Biological physics
Paper 1/RAC.	Relativistic astrophysics and cosmology
Paper 1/PP.	Particle physics
Paper 1/PEP.	Physics of the Earth as a planet
Paper 1/TQM.	Theories of quantum matter
Paper 1/AOP.	Atomic and optical physics

Candidates may replace one Major Topic with the paper Quantum field theory (Paper 1/QFT) from Part III of the Mathematics Tripos (taken in June).

Minor Topics

These papers will be taken at the start of the Easter Term. Each Minor Topic will be examined by a written paper of one and a half hours' duration. Each paper will consist of three questions, of which candidates will be required to answer two; all questions carry equal weight. Candidates who are not replacing Minor Topics by other work, as specified below, are required to take a minimum of three papers. The titles of the papers are as follows:

Paper 2/EXO.	Exoplanets
Paper 2/FSU.	Formation of structure in the universe
Paper 2/FOA.	The frontiers of observational astrophysics
Paper 2/GFT.	Gauge field theory
Paper 2/MP.	Medical physics
Paper 2/NOQL.	Non-linear optics and quantum states of light
Paper 2/CP.	Colloid physics
Paper 2/PT.	Phase transitions
Paper 2/PNS.	The physics of nanoelectronic systems
Paper 2/QI.	Quantum information
Paper 2/SQC.	Superconductivity and quantum coherence

Each paper or piece of further work listed below may replace one Minor Topic:

- A Long Vacation Project (2/LVP) (based on pre-approved project work undertaken during the previous Long Vacation)
- The Entrepreneurship option (2/ENP), which is examined by coursework
- The paper 'Advanced quantum field theory' (2/AQFT) from Part III of the Mathematical Tripos (examined in June)
- The examination paper 'Nuclear power engineering' (2/4M16) and 'Mathematical biology of the cell' (2/4G1) from Part IIb of the Engineering Tripos (examined at the start of the Easter Term)
- The Interdisciplinary papers in 'Materials, electronics, and renewable energy' (2/IDP3); 'Atmospheric chemistry and global change' (2/IDP1) and (2/IDP2) 'Climate dynamics and critical transitions' (all examined in the second half of the Easter Term)

Where candidates take more than three Major Topics, the examiners will use the best three results in determining the class; where candidates take more than three Minor Topics, the examiners will use the best three results in determining the class: all marks will appear on the transcript.

CLASS-LISTS, ETC.

Approved for degrees

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ACTA

Congregation of the Regent House on 22 October 2016

A Congregation of the Regent House was held at 11 a.m. All the Graces that were submitted to the Regent House (*Reporter*, 6440, 2016–17, p. 52) were approved.

The following degrees were conferred:

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J. W. NICHOLLS, *Registrar*

END OF THE OFFICIAL PART OF THE 'REPORTER'

COLLEGE NOTICES**Vacancies**

Pembroke College: Drapers' Company Research Fellowship in Physical or Biological Sciences or Mathematics; Harry F. Guggenheim Research Fellowship in Humanities and Social Sciences; Trebilcock-Newton Trust Research Fellowship in Arts, Humanities, and Social Sciences; Randall Dillard Research Fellowship in Arts and Social Sciences; tenure: from 1 October 2017; salary: £22,494–£25,298 at current rates; closing date: 25 November 2016; further details: <http://www.pem.cam.ac.uk/the-college/job-vacancies/>

Other Notices*Downing College***Memorial service for Mr Nigel Allington**

A memorial service for Mr Nigel Allington will take place in the College Chapel, Downing College, at 1.15 p.m. on Saturday, 29 October 2016. Those who wish to attend please notify the Master's PA, Maggie Cherry (email: masters-pa@dow.cam.ac.uk or tel.: 01223 334806).

Memorial service for Dr Peter Mathias

A memorial service for Dr Peter Mathias will take place in the College Chapel, Downing College, at 2 p.m. on Saturday, 12 November 2016. Those who wish to attend please notify the Master's PA, Maggie Cherry (email: masters-pa@dow.cam.ac.uk or tel.: 01223 334806).

*Fitzwilliam College***Memorial service for Professor Alan Cuthbert**

There will be a memorial service to celebrate the life of Professor Alan Cuthbert, Master of Fitzwilliam College, 1991–99, in the Chapel of Jesus College at 2 p.m. on Saturday, 5 November 2016, to which all are welcome. Refreshments will follow.

*King's College***Art exhibition**

An exhibition of paintings by Richard Hickman, entitled *Ekphrasis*, will take place in the King's College Art Room from Wednesday, 2 November 2016 to Saturday, 26 November 2016. Further details are available at <http://www.kings.cam.ac.uk/events/exhibitions.html>. The sale of the paintings is in aid of Footage Foundation: see <http://www.footageyouth.org/>.

*Trinity College***Lees Knowles Lectures 2016**

The Lees Knowles Lectures for the Michaelmas Term 2016 on the theme *The Byzantine art of war*, will be given by James Howard-Johnston, Emeritus Fellow of Corpus Christi College, Oxford, at 5 p.m. as follows:

1 November 2016: *The grand strategy of the Emperor Justinian*

8 November 2016: *The last great war of antiquity*

15 November 2016: *An early medieval guerilla state: Dark Age Byzantium*

22 November 2016: *The resurgence of Byzantium, 9th–11th centuries*

Further information is available at <http://www.trin.cam.ac.uk/events/>.

SOCIETIES, ETC.**Cambridge Society for the Application of Research**

Dr Michelle Linterman, Babraham Institute and Churchill College, will give a lecture entitled *What shapes the human immune system*, at 7.30 p.m. on Monday, 31 October 2016, in the Wolfson Lecture Theatre, Churchill College. Further details are available at <http://www.csar.org.uk>.

Society for the History of the University

The next meeting will be held at 8.30 p.m. in the Old Library, Darwin College, on Thursday, 3 November 2016. Dr Lucilla Burn will give a paper entitled *Not merely a magnificent toy: the Fitzwilliam Museum and its parent University, 1816–2016*. Refreshments will be served from 8 p.m.

EXTERNAL NOTICES**University of Oxford**

Faculty of History: Professorship of Economic and Social History; closing date: 1 December 2016; further details: <https://www.ox.ac.uk/about/jobs/academic/index/>

Jesus College and Faculty of Law: Tutorial Fellowship in Law with an Associate Professorship of Law; £45,066–£60,513, plus benefits; closing date: 2 December 2016 at 12 noon; further details: <http://www.jesus.ox.ac.uk>

New College: Salvesen Junior Fellowship; closing date: 25 November 2016; further details: <http://www.new.ox.ac.uk/salvesen-junior-fellowship>

Tutorial Fellowship and Associate Professorship of the Modern History of War; closing date: 2 December 2016; further details: <http://www.new.ox.ac.uk/tutorial-fellowship-and-associate-professorship-modern-history-war>

St Peter's College: Schools Liaison Officer; salary: £27,328–£32,600; closing date: 11 November 2016; further details: <http://www.spc.ox.ac.uk/about/vacancies>

University College: Junior Research Fellowship in Law; salary: £22,250 plus benefits; closing date: 28 November 2016 at 12 noon; further details: <http://www.univ.ox.ac.uk/content/junior-research-fellowship-law>

Junior Research Fellowship in Mathematical, Physical, and Life Sciences; salary: £22,250 plus benefits; closing date: 28 November 2016 at 12 noon; further details: <http://www.univ.ox.ac.uk/content/junior-research-fellowship-mathematical-physical-and-life-sciences-0>

Worcester College: Chaplain; salary: up to £25,327, plus accommodation or housing allowance; closing date: 18 November 2016 at 12 noon; further details: <http://www.worc.ox.ac.uk/jobs>

A memorial service for Professor James Campbell (sometime Fellow and Tutor in History, Worcester College) will be held at 2 p.m. on Thursday, 3 November 2016 at the University Church of St Mary the Virgin, High Street, Oxford, OX1 4BJ. Refreshments will be available after the Service in Hall at Worcester College.