

# Unilever Professorship of Molecular Sciences Informatics

Yusuf Hamied Department of Chemistry

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Closing date: 30 January 2023 Job Reference: MA33944









### **Unilever Professorship of Molecular Sciences Informatics**



Background to the role

The Unilever Professorship of Molecular Sciences Informatics was established in 1999 as a result of a gift from Unilever. At the same time, Unilever also funded an extension to the main building which houses the Centre for Molecular Informatics.

The first holder of this professorship was Prof Bobby Glen (who retired in 2020) and under his guidance the Centre expanded to include three further members of the academic staff. Members of the Centre maintain close links with colleagues in other areas of the Department, especially those working in theoretical or and synthetic chemistry.

We seek a distinguished and energetic successor to carry out pioneering work in the field of molecular informatics, broadly defined, and to provide leadership in the Department in this area.

The Electors to the professorship intend to interpret Molecular Sciences Informatics broadly, and applicants working in any of the following fields, or in related areas, will be welcome: applications of and/or method development in cheminformatics; applications of machine learning and artificial intelligence to areas such as molecular design and simulation, including applications to statistical mechanics and electronic structure; cheminformatics approaches to the study of biomolecular interactions and/or the interactions between small molecules and biological networks.

#### Standard Duties

#### 1) Teaching and research

The Professor will be required to deliver lectures and give instruction in chemistry and in particular to perform the following duties:

- to undertake original work and the general supervision of research and advanced work in their subject in the Yusuf Hamied Department of Chemistry, and to assist students in their studies by supervision or informal instruction.
- ii) to lecture, or hold classes, and to give at least 12 lectures or classes

#### 2) Examining

The Professor will be required to undertake such university examining as may be required by the relevant Faculty Board or comparable body.



#### 3) Supervision

The Professor will be required to act as the supervisor of graduate students as and when requested.

#### 4) Administration

Administrative duties are shared equitably among the teaching members of the Faculty. The Professors are expected to play significant roles from time to time on the Faculty Board and Faculty Committees dealing with such matters as academic and other appointments, admission of graduate students, research and teaching assessments, the libraries and computing arrangements. They are also encouraged to accept appointment to University Committees and to consider being involved in the senior leadership of the Department.





### **Person Specification**

Candidates will be considered for the Professorship on the basis of the following selection criteria, which you should address in your application.

Criteria	Essential	Desirable
Education		
An outstanding research record of international stature in molecular sciences informatics, broadly interpreted.	$\checkmark$	
The vision, leadership experience and enthusiasm to build on current strengths in maintaining and developing a leading research presence, and an established record in attracting research grant support to further this development.	$\checkmark$	
The ability to further the academic planning and strategic development molecular sciences informatics (broadly interpreted) in the University and, where appropriate, to facilitate its development within the UK.	✓	
The ability to manage and interact effectively with staff and students at all levels.	$\checkmark$	
An enthusiastic commitment to the recruitment, training and mentoring of the next generation of researchers, including undergraduates, research students, and postdoctoral research fellows	✓	
Candidates will hold a PhD or equivalent postgraduate qualification.	$\checkmark$	
A track record of active involvement in interdisciplinary research, networks and collaborations, including management of interdisciplinary grants and funding, would be an advantage.		✓

## The Yusuf Hamied Department of Chemistry



The Yusuf Hamied Department of Chemistry consists of a large number of strong individual research groups covering a very wide spectrum of science, centred on chemistry, but ranging from molecular biology to geophysics.

The Department consists of about 50 permanent members of the academic staff, 140 support staff, 300 postgraduate students and 200 postdoctoral research workers. The research is supported by a wide range of sources including the Research Councils, the European Union, industry and charities. Over the past 5 years the average research grant income has been £20M / year. The Department also receives direct funding from the University to maintain key support staff and facilities, along with significant income from endowment funds.

Many of the academic staff have been awarded major medals or prizes, we have 7 Fellows of the Royal Society active in research, and three colleagues have received knighthoods or damehoods in recognition of their scientific work. In international comparisons the Department is consistently ranked in the top four and is the highest ranked department in the UK.

The range of research in the Department is exceptionally varied, and much of it is carried on in collaboration with other departments in Cambridge, such as physics, materials science, biochemistry and the many departments on the biomedical campus. Many staff also have international collaborations and are members of international networks. The University encourages translational research and the commercial exploitation of intellectual property, and several members of the academic staff have spun out companies which have attracted significant funding.



The Department is housed in a single site in the centre of Cambridge. The main building dates from the late 1950s but it has been continuously updated and refurbished to meet our current needs. There are two significant recent additions to the main building: the Centre for Chemical Informatics (added in 2000) which houses research space, a library/study area and our 'Cyber Café' over four floors; and the Chemistry of Health building (added in 2018) - an exceptionally high-quality building which over four floors houses biological/biophysical research and a commercial incubator.

We attract applications from the highest quality PhD students and postdoctoral research staff from around the world. The administrative and support staff are of the highest calibre, enabling and supporting our research and other activities.

The teaching of undergraduate chemistry takes place within the framework of the Cambridge Natural Sciences Tripos. Chemistry in the most popular subject for first-year Natural Science students (about 450 each year), and it remains a popular subject right through the end of the course. Our third year class is typically 120, and of these about 80 go on to complete the fourth year (thus gaining an integrated masters). Current research in the Department is strongly represented in the latter years of the course. Further details of all the Department's activities can be obtained from the Department's website: http://www.ch.cam.ac.uk



### The School

The School of the Physical Sciences is one of six Schools making up the academic work of the University. It covers Astronomy, Chemistry, Earth Science, Geography, Materials Science and Metallurgy, Mathematics and Physics.

The School's aim is to contribute to our understanding of the physical world through excellence in observational, theoretical and experimental science and to extend quantitative, qualitative and combined methodologies to address problems in the fields of biology, technology, medicine, social science and the humanities. In pursuit of these goals, the School coordinates objectives in research, teaching, and infrastructure.

#### About the School

The School of the Physical Sciences comprises the following Departments:

Applied Mathematics and Theoretical Physics (DAMTP)

**Chemistry** 

Earth Sciences

<u>Geography (including the Scott</u> <u>Polar Research Institute)</u>

Institute of Astronomy

Issac Newton Institute of Mathematical Sciences

Materials Science and Metallurgy

Physics (Cavendish Laboratory)

Pure Mathematics and Mathematical Statistics (DPMMS)



The School is responsible for allocating core funds to departments and provides broad strategic focus across its constituent departments in a number of areas including; research activity, undergraduate and graduate education, estate needs, fundraising and human resources. As part of the University's annual planning cycle, the School prepares a financial and academic plan which sets out strategic objectives, determines budgets, as well as the flow of resources to departments. The School manages a wide range of administrative activities and projects across its departments and works alongside other Schools to further interdisciplinary research.

The School has over 1500 members of staff, over 3000 students and an annual budget of over £100 million.

## **Terms of Appointment**

All appointments to University Offices are subject to the Statutes and Ordinances of the University.

#### Salary

Salary on appointment will be determined by the Vice-Chancellor at an appropriate point on the University's salary spine for grade 12, taking into account the criteria for the respective contribution band. Professorial salaries are reviewed periodically, on the basis of research, teaching and general contribution, by the Vice-Chancellor with the assistance of a small Advisory Committee.

#### Headship of the Department

Should a Professor be appointed to the Headship of a Department, a pensionable payment is made in addition to salary.

#### **Recruitment Incentive**

The University has a scheme whereby a single recruitment incentive payment may be made on appointment at the Vice-Chancellor's discretion.

#### Tenure

Appointments are to the retiring age for established academic positions.



#### Working Pattern

The appointment is full-time.

#### Annual leave

Subject to compliance with the Statutes and Ordinances relating to leave, full time officers are entitled in any holiday year to take a minimum of 28 days annual paid holiday. These periods are inclusive of public holidays that fall outside Full Term.

#### Sabbatical leave

Cambridge has a generous statutory provision for leave of absence of one term for every six terms of service. Academic staff use this opportunity for study and research.

#### Pension

You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme), a defined benefits pension scheme. If you are already a member of the NHS Pension scheme, you may be eligible to continue in the scheme and should contact the Pensions section of the University: www.pensions.admin.cam.ac.uk/

#### **College membership**

Membership of a College adds an important social and intellectual dimension which many of the University's academic community find attractive. Further details about a Professorial Fellowship are set out below and more details about college membership are provided in a separate section of this document.

The Scheme for newly-appointed University Officers seeking a College Fellowship is set out at: <u>https://www.ois.cam.ac.uk/uto-scheme</u>

#### Residence

It is a requirement of the role that you are resident in the University during term-time. Further information can be found here, p. 679: <u>Chapter XI - University Offices and Grants of</u> <u>Title (2021 edition of Statutes and Ordinances</u> <u>of the University of Cambridge)</u>

#### **Removal Expenses**

If the person appointed is not resident in Cambridge, a contribution from University funds will be made towards expenditure incurred in removal to Cambridge to take up a University office.

#### **Consultancy Work**

The University's policy on consultancy work is that consultancy arrangements must be entered into privately between the employee and the organisation concerned. The consultancy work must not interfere with the duties required of the officer under the officer's contract of employment with the University. Consultancy work is not covered by the University's insurances, even when the University has knowledge that such work is being done. The University must not be regarded as being directly or indirectly involved in any consultancy arrangement through the use of University letterheads, advice given or work done in the individual's capacity as an employee of the University. Individuals undertaking private or consultancy work are advised to take out personal insurance.

Alternatively, professional indemnity cover may be obtained by channelling private work through the University company Cambridge Enterprise Ltd. Anyone wishing to do so should, in the first instance, contact them at <u>www.enterprise.cam.ac.uk</u>.

#### **Professorial Fellowships**

The great majority of Professors at Cambridge hold a professorial fellowship of a college. Although election to a fellowship is a matter for an individual college, the University takes active steps to draw the attention of Heads of House to the names of those Professors eligible for election. The Scheme for newlyappointed University Officers seeking a College Fellowship is set out at:

https://www.ois.cam.ac.uk/uto-scheme

#### **General information**

#### **Pre-employment checks**

**Right to work in the UK** - We have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us. Accordingly, shortlisted candidates, whatever their nationality, will be asked to provide such evidence at an appropriate stage in the recruitment procedure. If you do not have the right to work in the UK already, any offer of employment we make will be conditional upon you gaining it.



Health Declaration - Offers of appointment made to prospective University officers whose work will fall within certain categories are conditional on the completion of a medical guestionnaire and, if necessary, on a satisfactory health check by the Occupational Health Service. Only the person elected will be asked to complete the questionnaire, at the time of election.

References – References will be requested prior to the final meeting of the Board of Electors.

Please note: references are not required from your current employer.

#### Equal Opportunities

The University of Cambridge appoints solely on merit. No applicant for an appointment in the University, or member of staff once appointed, will be treated less favourably than another on the grounds of sex (including gender reassignment). marital or parental status, race, ethnic or national origin, colour, disability (including HIV status), sexual orientation, religion, age or socio-economic factors.

#### Equality, Diversity and Inclusion

We particularly encourage women and /or candidates from a Black, Asian and Minority Ethnic background to apply for this vacancy as they are currently underrepresented at this level within our University.

#### Information if you have a disability

The University welcomes applications from individuals with disabilities. We are committed to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so and, if successful, to assist them during their employment. Information for disabled applicants is available at:



https://www.hr.admin.cam.ac.uk/policiesprocedures/disabled-applicants-and-membersstaff

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time.

Applicants wishing to discuss with or inform the University of any special arrangements connected with their disability can, at any point in the recruitment process, contact Dr Gosia Wloszycka, who is responsible for the administration of the recruitment process for this position, by email on:

mw425@admin.cam.ac.uk

### The University

The University of Cambridge is one of the world's oldest and most successful universities. We are a renowned centre for research, education, and scholarship that makes a significant contribution to society. The University is consistently ranked amongst the top universities in the world. Our affiliates have won more Nobel Prizes than any other University.

Our sustained pursuit of academic excellence is built on a long history of firstclass teaching and research within a distinctive collegiate system. For eight centuries our ideas and innovations have shaped the world. Our principal goal is to remain one of the world's leading universities in an increasingly competitive global higher education sector. Today the University of Cambridge is at the centre of a cluster of over 4,300 businesses employing 58,000 people. Our capital investment projects include the West Cambridge site, the North West Cambridge development and the growth of the Biomedical Campus in the south of the city. The North West Cambridge development includes the opening of a primary school – the first in the UK to be managed by a University. So we are deeply embedded in, and committed to serving, our local community. These are all conspicuous signs of a University that is not only adapting to new needs, but also anticipating the future.

Our mission is to contribute to society through the pursuit of education, learning, and research at the highest international levels of excellence. Our core values are:

- freedom of thought and expression; and
- freedom from discrimination.



### **About Us**

The University is one of the world's leading academic centres. It comprises 150 faculties and departments, together with a central administration and other institutions. Our institutions, museums and collections are a world-class resource for researchers, students and members of the public representing one of the country's highest concentrations of internationally important collections.

The University has an annual income of £2 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £500 million per annum and continues to grow.

The Colleges and the University remain committed to admitting the best students regardless of their background and to investing considerable resources both in widening access and financial support. The 31 Colleges are self-governing, separate legal entities which appoint their own staff. Many academic staff are invited to join a College as a Teaching Fellow, which provides a further social and intellectual dimension. The Colleges admit students, provide student accommodation and deliver small group teaching. The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching and conducting research.

Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; or the close association with the government of India to pursue new research in crop science; or the creation, with Germany's Max Planck Institutes, of a Cambridge-based centre for the study of ethics, human economy and social change – international partnerships are now an inextricable part of the University's make-up.

"Cambridge graduates and researchers have made – and continue to make – a colossal contribution to human knowledge and the understanding of the world around us. Their work touches on the lives and livelihoods of everyone from patients diagnosed with life-threatening diseases, to residents of areas critically affected by climate change, to children growing up in conflict zones. It has a lasting impact on our society, our economy and our culture: the world is truly a better place thanks to their efforts."

Stephen Toope, Vice Chancellor 2019

## Working at the University

Working at Cambridge you will join a diverse, talented and innovative community, with more than 18,000 students and over 16,000 staff from all walks of life and corners of the world.

The University continually explores strategies to attract and retain the best people. It is committed to supporting its staff to achieve their best. We are a fair, diverse and inclusive society and we believe our staff are our greatest asset. There is strong commitment to developing institutional leadership and supporting and encouraging staff development at all levels.

We offer a variety of roles including academic, research, professional, managerial and support roles. We also offer extensive benefits and excellent learning opportunities within a stimulating working environment.

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a new science and technology campus to the west of the city centre, and is now expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with our continued development, the University remains within walking or cycling distance across the campus. The University is a major partner on the Cambridge Biomedical Campus and we continue to redevelop our historic city centre sites demonstrating our determination to ensure that we can offer the best facilities and opportunities for our staff and students.



#### Equality & diversity

The University has built its excellence on the diversity of its staff and student community. We aim to be a leader in fostering equality and inclusion, and in promoting respect and a sense of belonging for all. We encourage applications from all sections of society. All appointments are made on the basis of merit. We have an Equal Opportunities Policy, along with a range of diversity networks for women, black and minority ethnic and lesbian, gay, bisexual and transgender staff. More details are available here: <u>http://www.equality.admin.cam.ac.uk/</u>

The University has a bronze Race Equality Charter aware, with framework for improving the representation, progression and success of minority ethnic staff and students within higher education. Furthermore, the University's Athena SWAN award recognises and celebrates good practice in recruiting, retaining and promoting women.

## Living in Cambridge

Cambridge is rich in cultural diversity. From beautiful University and College buildings, museums and art galleries, quaint gardens and punts on the River Cam, to a vibrant restaurant and café scene, our employees are surrounded by the wonderful features of this unique city.

You can find a wide-range of high street shops and 3 shopping centres, with independent alternatives at the historic market and nestled within the passageways in the city centre. You will find a cinema, bowling alley, a nightclub and various live performances At the Cambridge Leisure Park, with further entertainment options at the Corn Exchange, Arts Theatre and the ADC Theatre. Further information can be found on the Visit Cambridge website.

If you prefer the faster pace of life, London is a 45 minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away. The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races and various wildlife parks and stately homes. Cambridge is also within easy reach of the beautiful Broads and coastlines of Norfolk and Suffolk.

#### **Relocation Support**

The University recognises the importance of helping individuals to move and settle into a new area. We provide support and guidance to those relocating internationally or domestically to take up a post at the University of Cambridge, liaising with other University offices and selected partners to ensure comprehensive relocation support is available. This includes: accommodation, childcare, schools, banking, immigration and transport. If you would like further information, please visit https://www.accommodation.cam.ac.uk/reloc ation. The Shared Equity Scheme and the **Reimbursement of Relocation Expenses** Scheme provide financial assistance to qualifying new members of staff with the costs of relocating to Cambridge.

#### Accommodation Service

The University Accommodation Service helps staff, students and visiting scholars who are affiliated to the University in their search for suitable accommodation in Cambridge. The dedicated accommodation team can provide access to a wide range of University-owned furnished and unfurnished properties, and has a database of private sector accommodation available for short and long-term lets. For further information and to register with this free service please visit <u>https://www.accommodation.cam.</u> <u>ac.uk/</u>

### What Cambridge can offer

#### We offer a comprehensive reward package to attract, motivate and retain high performing staff at all levels and in all areas of work.

The University offers a wide range of competitive benefits, from family leave entitlement, to shopping and travel discount schemes. Our generous annual leave package contributes to the positive wellbeing of our University employees. Sabbatical leave enables academics to focus on research and scholarship, whilst still maintaining their full salary. The University also has a <u>career break scheme</u> <u>for academic and academic-related staff</u>, with additional flexible working policies for all other staff.

#### Pay and benefits

The University salary structure includes automatic service-related pay progression in many of its grades and an annual cost of living increase. In addition to this, employees are rewarded for outstanding contribution through a number of regular pay progression schemes. The University offers attractive pensions schemes for employees, with an additional benefit of a salary exchange arrangement providing tax and national insurance savings. Payroll giving is also a simple, tax-efficient way for employees to make monthly donations to charity.





#### CAMbens employee benefits

We offer a CAMbens scheme for University employees, providing access to online and instore shopping discounts and cashback. With more than 2,000 participating retailers, employees can save money on a wide range of household expenses, from groceries and clothes, to holidays and insurance and much more. A range of local discounts are also available, helping employees to save money whilst also supporting local Cambridge businesses and a CAMbens Cycle to Work salary sacrifice scheme is also available, which enables employees to save money on transport costs. A 10% discount rate on the purchase of train season tickets, bulk buy tickets and an interest free travel to work loan are also available for staff of the University.

## What Cambridge can offer

#### Family-friendly policies

The University recognises the importance of supporting its staff. We have a range of familyfriendly policies to aid employees' work-life balance including a generous maternity, adoption and shared parental leave entitlement of 18 weeks full pay, and paid emergency leave for parents and carers.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high quality holiday Playscheme may be available to help support University employees with caring responsibilities (subject to demand and qualifying criteria). Further childcare information can be found here:

https://www.childcare.admin.cam.ac.uk/

The <u>Newcomers and Visiting Scholars Group</u> is an organisation within the University run by volunteers whose aim is to help newly arrived wives, husbands, partners and families of Visiting Scholars and members of the University to settle in Cambridge and give them an opportunity to meet local people. The Postdoc Academy supports the postdoctoral community within Cambridge. Further details are available here: <u>https://www.postdocacademy.cam.ac.uk/</u>



#### Your wellbeing

The University's Sport Centre, Counselling Services and Occupational Health are just some of the support services available to University employees to promote their physical and mental wellbeing. There are many societies in Cambridge catering for almost every taste and interest. Whether you want to take part in a sport, participate in music or drama, pursue a hobby, or join a political group, you will almost certainly find that a society exists for this purpose. The University also hosts the Cambridge Science Festival and Cambridge Festival of Ideas, as well as Open Cambridge weekend, which together attract over 50,000 visitors per year. The festivals are a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.

#### **Development opportunities**

We support new employees to settle in through various activities. The encouragement of career development for all staff is one of the University's values and we put this into practice through various services and initiatives. Our Personal and Professional **Development Department provides** development opportunities and courses for all University employees. These include face-toface sessions, online learning modules and webinars. Employees may also apply for financial support to undertake training that will lead to a qualification. We offer reduced staff fees for University of Cambridge graduate courses and the opportunity to attend lectures and seminars held by University departments and institutions. The CareerStart@Cam programme also supports employees in assistant staff roles who do not hold higher education gualifications to develop their skills, experience and qualifications.

## **College Membership**

The University, the Faculties and Departments, and the Colleges are linked in a complicated historical relationship that is mutually beneficial but not simple. Students (both graduate and undergraduate) are admitted by one of the 31 Colleges, although in the case of graduate students the Faculties and Departments determine admissions before the Colleges are involved. Almost all undergraduates, and many graduate students, live in a College.

The teaching of undergraduate students is shared between the Colleges and the Faculties and Departments, with the Colleges arranging small group teaching ("supervision") and the Departments providing lecturing, laboratory classes, and advanced supervisions. Most academic staff will also be invited to join a College as a teaching or professorial fellow. Membership of a College adds an important social and intellectual dimension which many of the University's academic community find attractive. Most colleges expect their fellows to take part in undergraduate supervision and College administration. Appointment to a College fellowship is a separate matter from a University appointment, for which the College provides modest remuneration additional to University salary. It is not compulsory for academic staff to be a member of a College.

Further advice can be obtained from The Chair of the Faculty/Head of Department or senior colleagues.

The Scheme for newly-appointed University Officers seeking a College Fellowship is set out at:

https://www.ois.cam.ac.uk/utoscheme/guida nce-for-applicants/view



## How to Apply

Applications, consisting of a letter of application together with a statement of current and future research plans, a curriculum vitae and a publications list, should be made online no later than: 30 January 2023.

Applications should be submitted online via the University of Cambridge jobs page <u>www.jobs.cam.ac.uk</u> by clicking "Apply online" in the job advert. You will need an email address to register for our online system.

Conversations about flexible working are encouraged at the University of Cambridge. Please feel free to discuss flexibility prior to applying (using the contact information below) or at interview if your application is successful.

If you have any queries regarding the application process please contact: Dr Gosia Wloszycka at:

professorships@admin.cam.ac.uk and/or mw425@admin.cam.ac.uk

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#### **Appointment Procedure**

The appointment will be made by a Board of Electors, chaired by the Vice-Chancellor or Deputy, with a membership which includes members of the Department, members of cognate Departments and external experts.

All applications will be acknowledged. The Board of Electors will decide how they wish to proceed towards making an election, which may include interviews and/or presentations. Short-listed candidates may be invited to visit the Department to give a seminar on their work and meet prospective colleagues in the course of the process.

Candidates will be informed of the progress of their applications as agreed by the Electors.

It is anticipated that the successful candidate will take up the appointment on 1 October 2023 or as soon as possible thereafter.

#### **Informal Enquiries**

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Informal enquiries about this Professorship are welcomed and should be directed to:

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Dr James Keeler, Head of Department **Telephone:** +44 (0)1223 336341 **Email:** hod@ch.cam.ac.uk

