

# 剑桥导师制科研项目

Cambridge Research Programme  
held at Colleges of the University of Cambridge

## 可选导师专业

人工智能 | A I、C S、软件工程等相关专业  
材料科学 | 化学、纳米、材料工程等相关专业  
医学药学 | 医科、药科、临床医学等相关专业  
国际关系 | 法律、法学、国际法学等相关专业  
人文社科 | 文学、心理、社会科学等相关专业  
金融商学 | 金融、财会、国际贸易等相关专业

## 课程时间

14天13晚【第一期】：

2024年7月15日-7月28日，7月29日到达国内

14天13晚【第二期】：

2024年7月29日-8月11日，8月12日到达国内

14天13晚【第三期】：

2024年8月12日-8月25日，8月26日到达国内



剑桥导师制项目咨询:Chris

## 报名链接



## 剑桥大学合作学院住宿 held at Colleges of the University of Cambridge



本项目以剑桥导师制学习模式为主，学生将会在项目中匹配唯一剑桥教授作为导师，通过系统的科研学习与实践，带领学生建立研究型思维模式，帮助学生发现不足、找到提升方向，明确人生规划，多维锻炼能力，深刻感受世界顶级名校的学习氛围和独特的英伦文化，开拓国际视野。



项目简介  
About Programme

# 项目亮点

## 全球招生

本项目在全球招生，根据学科方向混合编班，各国学生将共同学习生活。学生们将通过学习和各种文化社交活动，结识志同道合的新朋友，为未来做准备。

## 剑桥学子体验

项目全程入住剑桥大学学生宿舍（单人间或双人间），在食堂就餐，在教室上课，自由使用学院设施及出入剑桥大学图书馆，与剑桥学子全程共同学习和生活，高级别安全保障。\* 宿舍满员则入住剑桥大学周边酒店



## 密集型导师制科研

为期2周密集型导师制学术科研项目的关键部分是培养科研能力。

- 在剑桥大学导师和助教的指导下，进行所选学科方向的深入学习和研究，接触这一学科领域最新的知识、最前端的创新和研究成果。
- 学习者将通过剑桥大学教授提供的互动讲座/活动，以及剑桥大学博士生助教带头的小组辅导，培养对该学科的兴趣，提高科研能力。
- 学习者将通过剑桥大学下属机构组织提供的工作坊，提升学术软实力和职业竞争力。
- 学习者将以小组的形式开展各种类型的学习和科研项目，并在最终学术汇报上发表研究报告/演讲。

- ◆ 学术模块：55小时  
包括开幕及破冰，专业核心课程，大师讲座，工作坊，小组辅导，学术汇报，小组讨论和个人作业  
\*详情可参考日程安排
- ◆ 剑桥文化和社交活动：20小时
- ◆ 外出活动日：2日

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# 项目收获

- ◆ 剑桥大学官方合作学院/中心签发的项目学习证明
- ◆ 项目成绩报告单
- ◆ 项目特约顾问剑桥大学教授签发的推荐信\*
  - \*如果学生的表现达到规定的标准
- ◆ 科研导师的推荐信将授予在最终学术汇报中获得本专业方向最佳小组的所有成员以及个人综合成绩排名前20%的学生\*
  - \*如果学生的表现达到规定的标准



学习证明样例



成绩单样例



项目推荐信样例



导师推荐信样例



# 项目日程

	Day1, MON	Day2, TUE	Day3, WED	Day4, THU	Day5, FRI	Day6, SAT	Day7, SUN
Morning	Arrival & Check in	Orientation · Lecture Icebreaking	Academic lecture 1	Supervision 1	Academic lecture 2	Outing Day (optional, self-paying)	Outing Day (optional, self-paying)
Afternoon		City Hunt	College visit Punting	Master Talk 1	Workshop 1		
Evening		Individual work**	Salsa Individual work**	Individual work** Group meeting**	Individual work** Group meeting**		

	Day8, MON	Day9, TUE	Day10, WED	Day11, THU	Day12, FRI	Day13, SAT	Day14, SUN
Morning	Supervision 2	Academic lecture 3	Supervision 3	Academic lecture 4	Supervision 4	Presentation	Departure
Afternoon	Master Talk 2 Playfield	Workshop 2	Master Talk 3	Workshop 3	Group meeting**	Self Exploration	
Evening	Individual work** Group meeting**	Movie Night Individual work**	Individual work** Group meeting**	Talent Show Group meeting**	Group meeting**	Formal Dinner	

\*The programme schedule will be adjusted according to the specific arrangement.

\*\*This is an estimate by programme consultants and students are free to spend more time or less with group meeting & individual work.

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# 项目课程



## 大师讲座 | Master Talk

项目组邀请了一些来自不同学科的世界级学者和学术界人士就其专业领域进行研讨，以激发学生在这些领域的学术兴趣。演讲者包括世界著名的研究人员、政策制定者、行业领导者、社团、协会、专业机构和个人。

## 专业核心课程 | Academic lecture

导师制科研项目的核心是帮助学习者取得卓越的学术成就，为学生提供了许多可选的科目和讲座，为其未来可能涉及的科研工作/职业做足充分准备。



## 小组辅导 | Supervision

Supervision是剑桥大学教育系统的一个特色教学方式，学生通过与导师讨论研究进度，从导师处得到定期的反馈，包括在课程结束时的最终演讲准备的反馈，来更深入地探索选定的研究主题和方向。



## 工作坊 | Workshop

项目组邀请剑桥大学下属官方机构职业生涯培训师，提供专业表现力和科研协作中的实践技能，提升学生的软实力。



# 剑桥体验



## 剑桥撑篙 | Punting

徐志摩笔下的康河，令每一位游人无限向往。在充满柔情的康河上撑一只长蒿悠闲溯流，感受剑桥的古老与灵秀，被认为是到剑桥后不可错过的行程之一。

## 学院探访 | College Visit

作为书院制大学，剑桥大学的31个学院作为剑桥学子学习时的归属之地，各具特色。学院的古老建筑也蕴藏了不少历史和故事。



## Salsa | 萨尔萨舞

莎莎舞是一种节奏强烈的双人舞，讲究舞伴之间的配合和默契。舞蹈者将跟着热情奔放的音乐进行一系列的旋转，感受纯正的拉丁风情。在剑桥与同学一起跳交谊舞将快速建立彼此之间的友谊。

## Formal Dinner | 高桌晚宴

高桌晚宴对剑桥大学学生而言是历史最为悠久的传统社交活动。在剑桥古老的学院之中，烛光闪闪映照出庄严典雅的晚宴厅，学生身着正装晚礼服，聆听学院院士拉丁文祷告，享受最正宗的传统英国晚宴。



# 外出活动(自选)



## 温莎城堡 | Windsor Castle

温莎城堡是世界上最大的、现存最古老的有人居住的城堡，它作为英国君主的居住地已经有一千多年历史，见证了诸多英国重要的历史，同时也是国王为皇族、贵族等颁发爵位和封号的重要场所之一，包括著名的“嘉德骑士”封号的颁发。

## 巨石阵(中途停留巴斯) | Stonehenge

在英国伦敦西南100多千米的索尔兹伯里平原上，一些巍峨巨石呈环形屹立在绿色的旷野间，这就是英伦三岛最著名、最神秘的史前遗迹—巨石阵。巨石阵不仅在建筑学史上具有的重要地位，在天文学上也同样有着重大的意义。人们猜测这很可能是天文台最早的雏形。



## 伦敦 | London

伦敦是大不列颠及北爱尔兰联合王国首都，世界金融中心之一，是全世界博物馆、图书馆、电影院、戏剧院、体育场馆和五星级酒店数量最多的城市，是全球最富裕、经济最发达、商业最繁荣、生活水平最高的城市之一。

## 牛津(停靠比斯特小镇) | Oxford

牛津因世界一流学府的地位和遍布各地的古迹成为人们极度梦想的城市。9世纪建立的、距今有1100多年历史的牛津城是英国皇族和学者的摇篮。牛津虽然以大学而闻名，但遍布城市各个角落的商业企业，特别是高科技企业使牛津这座古老的城市焕发了青春的活力。





## Cohort

15th July - 28th July 2024

## Professor Biography

*Prof Pietro Lio* is a Full Professor of Computational Biology at the department of Computer Science and Technology of the University of Cambridge and a member of the Artificial Intelligence group.

He obtained a MA from Cambridge, a PhD in Complex Systems and Non-Linear Dynamics (School of Informatics, dept of Engineering of the University of Firenze, Italy) and a PhD in (Theoretical) Genetics (University of Pavia, Italy).

His research interest focuses on using bioinformatics, computational biology models and machine learning to integrate various types of data (molecular and clinical, drugs, social and lifestyle) across different spatial and temporal scales of biological complexity to address personalised and precision medicine. In the context of basic science, these approaches are effective in understanding the mechanisms and the dynamics of how biological elements build up properties such as sensing the environment, information carrying, being programmable and doing computation and communication. In the context of biomedical fields, by integrating different layers of evidence, predictive models will improve the accuracy of diagnosis of complex diseases in presence of other chronic and acute conditions, will identify effective markers for disease trajectory and suggest composition of treatments (drugs and lifestyle) before the manifestation of symptoms.



## Prof. Pietro Lio

- 剑桥大学计算生物学教授
- 剑桥大学计算机实验室人工智能小组成员
- 剑桥医学人工智能中心成员

## Cohort

29th July - 11th August 2024

## Professor Biography

**Prof Nic Lane** is a full Professor in the department of Computer Science and Technology at the University of Cambridge, where he leads the Cambridge Machine Learning Systems lab (CaMLSys). The mission at CaMLSys is to invent the next-generation of breakthrough ML-centric systems. He is also a Fellow of St. John's College.

Alongside his academic roles, he is the co-founder and Chief Scientific Officer of Flower Labs, a venture-backed AI company (YCW23) behind the Flower federated learning framework. Flower Labs seeks to enable an AI future that is collaborative, open and distributed.

He studies the design, architecture and algorithms of scalable and robust end-to-end machine learning (ML) systems. His research interests drive towards the development of new forms of ML systems that are revolutionary in how they leverage multi-modal data (e.g., speech, vision, location, inertial information) to infer and reason over complex real-world situations — while simultaneously, maintaining extreme levels of systems flexibility (e.g., distributed execution, adaptation) and efficiency (e.g., compute, memory).



## Prof. Nicholas Lane

- 剑桥大学机器学习系统教授
- 剑桥机器学习系统实验室(CaMLSys)负责人
- Flower Labs联合创始人兼首席战略官

## Cohort

15th July - 28th July 2024

## Professor Biography

A heart attack occurs when a blood clot forms in a coronary artery depriving blood flow from a region of the heart, a condition termed ischemia. Current therapy is to reopen the artery but blood flow is seldom restored before a significant amount of the heart muscle has died. Because lost heart muscle cannot be regenerated the patient is left with a weakened heart and heart failure often occurs. Our research is directed toward identifying therapies that prevent cell death in the ischemic heart and the subsequent development of heart failure.

*Prof. Thomas Krieg* has found that activation of the nitric oxide – PKG pathway (either through activation of guanylate cyclase or mitochondria-targeted S-nitrosylation) just before the restoration of blood flow (reperfusion) makes the heart very resistant to cell death. His current research is directed at understanding the complex protective mechanisms involved.

He studies these pathways using a model closely mirroring the pathophysiological events during an acute heart attack where he measures tissue death after a standardized ischemic insult as well as cardiac function as end-points.



## Prof. Thomas Krieg

- 剑桥大学实验心血管医学临床教授
- 剑桥大学医院荣誉顾问医生

## Cohort

12th August - 25th August 2024

## Professor Biography

*Prof. Ian Goodfellow* is Professor of Virology at the University of Cambridge and Deputy Head of Department (Pathology).

His research focuses on the mechanisms of RNA virus replication and pathogenesis as well as the identification of control measures for the prevention or treatment of infections. His lab established the use of reverse genetics to study the molecular basis of norovirus pathogenesis, developing the first infectious reverse genetics system for noroviruses and the study of no viruses remains their main focus.

During the 2014-16 Ebola virus epidemic, Professor Goodfellow was involved in the establishment and running of one of the first diagnostic facilities in Sierra Leone before subsequently returning to establish an in-country next generation sequencing facility to enable rapid sequence analysis of Ebola viral samples. Professor Goodfellow now holds an honorary position at the University of Makeni, Sierra Leone where he has established a research facility for post-Ebola capacity building.



## Prof. Ian Goodfellow

- 剑桥大学病毒学教授
- 剑桥大学病理学系副系主任 (分管科研)

# 材料科学方向

## Cohort

15th July - 28th July 2024

## Professor Biography

**Jason Robinson FIMMM** has a Professorial Chair in Materials Physics at the University of Cambridge where he is a joint Head of the Department of Materials Science & Metallurgy, Director of the Quantum Materials & Devices Group, and co-director of the Centre for

Materials Physics. His experimental research focuses on the development of multifunctional materials and devices, approaching key problems in the fields of spintronics, superconductivity, and quantum technologies. He has made major contributions to these fields, including the discovery of triplet Cooper pairs in hybrid superconductor/magnetic devices and helping to pioneer the field of superconducting spintronics.



## Prof. Jason Robinson

- 剑桥大学材料物理学教授
- 剑桥大学材料科学与冶金系联合系主任

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## Cohort

12th August - 25th August 2024

## Professor Biography

*Dr Catherine MacKenzie* is an academic and professional lawyer. She is a UK Commonwealth Scholarship Commissioner, Governing Master of the Bench of Inner Temple (Inn of Court for barristers), and a Governor of the Inns of Court College of Advocacy.

Her research is in international environmental law, forestry, land use and public international law.

Dr Catherine MacKenzie graduated from Oxford, London, the Inns of Court School of Law, Sydney, and the Australian National University, at which she was a UK Commonwealth Scholar. She is Director of Studies in Land Economy at Homerton and Magdalen, and Director of Studies in Law (LLM/MCL) at Homerton and Clare Hall. She is also a Visiting Research Fellow at Oxford.

Dr MacKenzie was elected Chair of the Board of Scrutiny of Cambridge University. She has also served as a Council Member of the Australian National University, and Dean of Degrees of Green Templeton College, Oxford. She currently serves, as a UK public appointee, on the UK Architects Registration Board Prescription Committee, and the UK Agricultural and Horticultural Development Board. Formerly employed by the United Nations, World Bank and Asian Development Bank, and has worked throughout Europe, Africa, Asia and the Pacific. She served with the United Nations Mission to Liberia, re-establishing the Liberia justice system, and currently advises on the development of women's law schools throughout the Middle East.



## Dr. Catherine Mackenzie

- 剑桥大学哈默顿学院法律及土地经济学学监
- 剑桥大学莫德林学院土地经济学学监
- 牛津大学格林坦普顿学院客座研究院士
- 英国内殿大律师及管理委员会委员

## Cohort

29th July - 11th August 2024

## Professor Biography

Originally from Brussels, *Professor Patrick Baert* did his graduate work at the University of Oxford, working on social theory under the supervision of Rom Harré. He subsequently joined the Sociology Department in Cambridge. His recent research in the sociology of

intellectuals has been funded by various bodies, including the British Academy, The European Research Council and the Leverhulme Trust. His writings have been translated into more than 10 languages.

Patrick is the chief editor of the International Journal of Politics, Culture and Society (Springer) and he also holds editorial positions at the European Journal of Social Theory, the Journal of Classical Sociology, Currently Sociology, and Distinktion. He has held visiting positions across the world, including the University of Cape Town, l'Université de Paris I Panthéon Sorbonne, the Humboldt University Berlin, Brown University, the University of British Columbia, the University of Concepcion in Chile, the LSE and Sciences Po.



## Prof. Patrick Baert

- 剑桥大学社会理论学教授
- 剑桥大学塞尔文学院 院士、学督及学监
- 英国皇家艺术学会院士

## Cohort

12th August - 25th August 2024

## Professor Biography

**Professor Nicola Clayton** and her lab Comparative Cognition Lab (CCL) study the development and evolution of cognition, and related topics such as natural and artificial Intelligence. The work is inspired by our research on the cognitive performance, behaviour and problem-solving abilities of corvids (members of the crow family, which includes jackdaws, rooks and jays), humans (including children) and a number of other animals, notably cephalopods (octopus, cuttlefish and squid). This is the only corvid research facility in the UK, and world-unique in its size and sophisticated set up for testing the birds. Members of the lab and our extended group also conduct behavioural research on dogs, elephants, and New Zealand robins.

The lab's research encompasses natural and artificial intelligence, children development, physical cognition (e.g. causal cognition), mental time travel (e.g. episodic-like memory and future planning), and social cognition (e.g. social learning). They are also interested in creating bridges between the arts and the sciences.



## Prof. Nicola Clayton, FRS

- 剑桥大学比较认知学教授
- 英国皇家学会院士
- 英国皇家生物学会院士
- 美国心理学会院士



## Cohort

15th July - 28th July 2024

## Professor Biography

*Professor Matthew Grimes* currently serves as Associate Editor of the *Academy of Management Journal*. He also

contributes to *Science Quarterly*, *Academy of Management Review*, and *Journal of Business Venturing*. He previously served

on the editorial review boards for *Entrepreneurship, Theory, & Practice* and *Strategic Entrepreneurship Journal*.

Prior to obtaining his PhD, Professor Grimes was an Associate Director for Research at CEB (now Gartner) in Washington DC, London and New Delhi.

Matthew Grimes was previously Assistant Professor at the University of Indiana's Kelley School of Business (2015-2018) and also at the University of Alberta School of Business (2012-2015). Dr Grimes was appointed a Visiting Scholar in the Discipline of Work and Organisational Studies at the University of Sydney Business School (2015) as well as an International Research Fellow at the Skoll Centre for Social Entrepreneurship at Oxford University (2015-2018).



## Prof. Matthew Grimes

- 剑桥大学贾奇商学院企业家精神和可持续未来教授
- 剑桥大学贾奇商学院创新、战略和组织学硕士项目主任
- 剑桥大学贾奇商学院创业中心联席主任

## Cohort

29th July - 11th August 2024

## Professor Biography

*Prof. Shahzad Ansari* is Head of the Strategy and International Business subject group at Cambridge Judge Business School and along with his colleagues he actively contributes to both academic and business communities.

His research interests include framing and social movements, technological and management innovations, platform ecosystems, new markets, social and environmental challenges, creation of commons, identity and reputation, institutional change, and the diffusion of practices.

Professor Ansari has published in several leading academic journals including *Academy of Management Journal*, *Academy of Management Review*, *Strategic Management Journal*, *Organization Science*, *Journal of Management Studies*, *Strategic Organization*, *Research Policy*, *Industrial and Corporate Change*, *Journal of Management Inquiry*, *Administrative Science Quarterly* and *Organization Studies*. He serves on the editorial boards of *Administrative Science Quarterly*, *Academy of Management Journal*, *Academy of Management Review*, *Strategic Management Journal*, *Journal of Management*, *Organization Science*, *Journal of Management Studies*, *Organization Studies* and *Research in the Sociology of Organizations*, is a high-performing member of the Erasmus Research Institute of Management (ERIM) at Erasmus University in Rotterdam, the Netherlands, and is a Honorary Professor of UCL, London.

He has consulted with several organisations including Shell, Jaguar Land Rover (JLR) and ABN-Amro (senior executives) and for various companies in Europe, India, Pakistan and China including finance, insurance, telecoms, FMCGs, and e-commerce/platform.



## Prof. Shahzad Ansari

- 剑桥大学贾奇商学院战略与创新教授
- 剑桥大学贾奇商学院战略与国际商务小组负责人
- 伦敦大学学院(UCL) 荣誉教授

## Cohort

12th August - 25th August 2024

## Professor Biography

*Dr Dörrzapf* is interested in algebraic aspects of quantum field theories, in particular representations of symmetry algebras in conformal field theories and string theories. He has worked on the representation theory of super conformal algebras which plays a central role in

string theory and has developed methods to classify superconformal representations. Dr Dörrzapf is also interested in probability theory and has worked on risk management models in financial mathematics in particular with respect to credit risk. He has done work for Deutsche Bank in Frankfurt and New York in collaboration with KMV corporation, San Francisco.

From 2013 to 2017, Dr Dörrzapf served as Senior Superintendent of St. John's College, responsible for teaching and student security. During his tenure, he launched several educational initiatives such as the low-income Undergraduate Scholarship, the College Freshman Admission Scholarship, the Undergraduate Academic Research Programme, Innovative Internships and Summer School. He has established several international cooperation programmes, creating opportunities for students to engage in research projects, internships and exchange programs.

Currently, Dr. Dolzapf is the director of Scholarships and international Programmes at St. John's College, Cambridge, where he is dedicated to developing a global scholarship program and providing worldwide opportunities for students to advance their education.



## Dr. Matthias Dörrzapf

- 剑桥大学圣约翰学院奖学金及国际项目主任
- 剑桥大学圣约翰学院数学学监
- 前德意志银行研发总监

# 报名咨询

项目费用 3,640英镑/人 (2周) 6,275英镑/人 (4周)

## 费用包含

- ◆ 项目课程和实践费用
  - 项目所有课程费用
  - 教学材料费用
  - 教学场地相关费用
  - 剑桥大学图书馆卡费用
- ◆ 住宿和餐饮费用
  - 剑桥大学学生宿舍费用 (2周/13晚,4周/27晚)
  - 住宿地网络服务
  - 非外出活动日早餐和晚餐(到达日不提供, 出发日仅早餐)
  - 学院高桌晚宴费用(2周/1次,4周/2次)
- ◆ 项目活动费用
  - 剑桥撑篙租船及船夫讲解员费用
  - 剑桥学院入内参访门票
  - 莎莎舞教练及场地费用

## ◆ 交通费用

- 希思罗机场接送机服务及司机小费

## ◆ 其它费用

- 团队旅行全球保险
- 剑桥大学财产损失保险
- 英国当地电话卡 (含当地流量)
- First-Aid 紧急治疗包和支援服务
- 项目组中方和英方项目人员管理服务费用, 包括**项目全程专职Manager**服务费

## 费用不含

- ◆ 国际往返机票
- ◆ 签证费用
- ◆ 国际汇款手续费
- ◆ 项目全程午餐费用
- ◆ 外出活动日费用

## 外出活动日费用(自选)

温莎-温莎城堡路线: 80英镑/人  
巴斯-巨石阵路线: 70英镑/人  
牛津-比斯特小镇路线: 60英镑/人  
伦敦路线: 60英镑/人

## 费用包含

- ◆ 往返剑桥大巴车费用
- ◆ 全程导游服务费及小费
- ◆ 全程司机服务费及小费
- ◆ 景点门票及导游讲解服务费

## 费用不含

- ◆ 活动日全天餐费
- ◆ 个人消费
- ◆ 因个人原因造成的额外交通及人员服务费