

SENIOR RESEARCH ASSOCIATE

Faculty of Science

School of Engineering,

Mathematics and Physics

RA2286

CANDIDATE BROCHURE



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WHAT MAKES UEA SO SPECIAL?

The University of East Anglia is a publicly funded major UK research and teaching university. It was built to embody a radical new vision for higher education, where interdisciplinarity is crucial and excellence in both research and teaching is valued. UEA consistently ranks within the top quarter of universities in the UK for the quality of research and teaching.

As a major regional employer and cultural centre, we take our regional civic responsibilities very seriously and have kept our sights on the people and place we call home. In fact, we launched our University Civic Charter in October 2023; created from in-depth community engagement, renewing our commitment to the region as part of our 60th anniversary.

There are many things which make UEA special, not least of which is the community of staff and students that work and study here. UEA includes three Nobel prize winners, including Sir Paul Nurse and Sir Michael Houghton, and many fellows of the Royal Society and British Academy amongst our alumni and current staff.

Our campus is home to Sir Denys Lasdun's iconic brutalist architecture set in hundreds of acres of beautiful country park that includes a large broad (lake). In the spirit of Lasdun's ambition to inspire an anatomy of ideas, today, UEA is tackling some of the key challenges of the changing world. UEA's research combines disciplines and breaks new boundaries across its priority

research themes of climate, creative and health.

UEA is the place where global warming was first documented. Since the 1970s, UEA's Climatic Research Unit, and more recently Tyndall Centre for Climate Change (Headquarters hosted at UEA), have played a pivotal role in developing temperature records and climate models, contributing to the understanding of climate change, and informing global policy. Our Professors Corinne Le Quere, Rachel Warren and Robert Nicholls were recipients of Nobel Peace Prize (2007), awarded to Al Gore and the Intergovernmental Panel for Climate Change (IPCC) in recognition of efforts to increase public knowledge of anthropogenic climate change. Environmental Science and Global Studies at UEA continue to be a major powerhouse for research and teaching.

UEA is widely regarded as a pioneer in creative writing, having established the UK's first Creative Writing Masters programme in 1970. This renowned programme has since attracted and produced numerous successful writers, including Booker Prize winners such as Ian McEwan and Anne Enright, and Nobel Prize Winner Kazuo Ishiguro. In recent years, UEA academics have played a pivotal role in the discovery and presentation of the Gloucester Royal shipwreck (Norfolk's Mary Rose). Our iconic Sainsbury Centre for Visual Arts is a major museum and arts research facility.



Health research at UEA not only embraces the Faculty of Medicine and Health but draws in research from both social and natural sciences. Research under this theme has made major contributions in the fields of healthy ageing, epidemiology and involving citizens (via our innovative Citizens' Academy) in improving health care outcomes. This theme benefits from close association with the other major research institutes on the Norwich Research Park; notably the Norfolk and Norwich University Hospital and the Quadram Institute. The Norwich Cancer Research Network, and Norfolk Institute for Healthy Ageing, are examples of key mechanisms for delivery of real impact from health research at UEA.

UEA has been a major success over the last 60 years and looks forward with confidence to the next 60 years.

For an informal discussion about the post please contact Prof. Mark Blyth at m.blyth@uea.ac.uk

UEA is part of the Norwich Research Park

Norwich Research Park (NRP) membership locates UEA in one of the largest concentrations of research institutes in the whole of Europe – four independent internationally-renowned research institutes: John Innes Centre, Quadram Institute, Earlham Institute and The Sainsbury Laboratory; with the University of East Anglia and Norfolk and Norwich University Hospitals NHS Foundation Trust, supported and funded by The John Innes Foundation, The Gatsby Foundation, and UKRI Biotechnology and Biological Sciences Research Council.

The NRP provides an ideal environment for collaborative use of infrastructure and facilities, with a single portal for academics and businesses to access the specialist facilities across the Park.

The Enterprise Centre is a regional business, knowledge and innovation hub, with workspace provision and supports over 80 businesses working alongside UEA staff and students in a dynamic and vibrant entrepreneurial community. On the wider NRP, there are dedicated laboratory and office spaces in the Innovation Centre and Centrum hosting over 600 staff within a total of 115 businesses and spinouts.



OUR BENEFITS

UEA offers a fantastic benefits package for staff. We recognise all our staff have different priorities and lifestyles so we are continually reviewing our offering to ensure there are benefits which suit everyone. Current benefits include:



Competitive Rates of Pay



30 Days Holiday



14 Additional Statutory and Customary days



Contributory Pension



Staff Development



Sportspark Discount



Research Support



Health and Wellbeing



Library



Campus Facilities



Care Leave Policies



Sainsbury Centre for Visual Arts



Ofsted Outstanding Nursery



And much more!

Further information can be found on our [Staff Benefits page](#).

THE ROLE

Role holders at this level will be experienced professional researchers and subject specialists, drawing upon knowledge gained from postgraduate research and/or working within a Grade 6 Research Associate role. They will be line managed by a more experienced member of the School, normally the Principal Investigator (PI).

They will be associated with a particular project (or projects) and will contribute ideas, and/or enhancement of techniques or methodologies. They will be expected to do some writing for dissemination as appropriate to the role. While working under supervision, they will also be expected to plan and manage their own research activity in collaboration with others and take significant initiatives in their work, consulting with the Principal Investigator over the details of the project.

They may contribute to the School's teaching, through supervision of projects, overseeing practical classes, or taking small group tutorial classes. They may work within teams and should contribute to the academic life of the School through participation in research seminars and contribution to appropriate School meetings.

They will be provided with academic and pastoral support within the School (including guidance on realistic career opportunities) and training and development activities will be available. These will be designed to develop their competencies and ability to take on a wider range of responsibilities.

KEY RESPONSIBILITIES

- Contribute ideas, including enhancements to the technical or methodological aspects of the study, to the research project, thus providing substantial 'added value'.
- Determine and deploy appropriate methodologies for research, with advice and support.
- Assess research findings in relation to the need/scope for further investigations.
- Write up the research work for publication, with appropriate support, in respected journals or equivalent and/or contribute as a team member to more significant/important publications.
- Present research findings, either at conferences or seminars appropriate to the discipline.
- May (consonant with the terms of their funding) contribute to the teaching of students in the School, usually within their own field of expertise and knowledge of research methods.
- May be involved in the supervision, with guidance, of final year undergraduate/taught postgraduate research projects as well as the day-to-day supervision of PhD students..
- May begin to referee for external bodies.
- Participate effectively in activities to achieve engagement with research, and/or impact beyond academia.

THE ROLE (CONTINUED)

- Actively develop their own research network with researchers in other institutions, nationally and internationally.
- Communicate with users of, and communities relevant to, the research and, as appropriate, the subjects of their research.
- Undertake additional or alternative duties commensurate with the grade as deemed appropriate by the PI.
- Contribute to the continuous development of the School.
- Positively Support and promote the University's values in all aspects of work.
- Abide by all University Regulations and Policies relevant to the role.
- Observe the strict rules of confidentiality applicable to work within the School.

THE PERSON

EDUCATION & TRAINING

- PhD in a relevant area of applied mathematics, preferably fluid mechanics. (E)

SKILLS, KNOWLEDGE & EXPERIENCE

- Publications in respected journals or equivalent in the field. (E)
- Practical skills capable of leading to original contributions to the subject area. (E)
- Ability to use initiative and apply creativity to solve problems. (E)
- Meticulous with strong attention to detail. (E)
- Strong user of Latex, Matlab or similar computer programming language, Maple or similar. (E)
- Detailed subject knowledge and skills in the research area. (E)
- Report writing and presentation skills. (E)
- Good time management skills. (E)
- Excellent interpersonal skills; ability to quickly establish and maintain good working relationships at all levels. (D)
- Advanced skills directly related to research project. (D)

PERSONAL ATTRIBUTES

- Proactive and self-motivated and willing to take ownership of tasks. (E)

Essential Requirements (E) are those, without which, a candidate would not be able to do the job.

Desirable Requirements (D) are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

FURTHER INFORMATION

This full-time post is available from 1 May 2025 on a fixed term basis for up to 36 months. Appointment will be subject to funders approval.

Salary will be £38,249 to £45,413 per annum on Grade 7 on the single salary spine.

Place of Work - The University is strongly committed to providing an excellent student experience and research environment, and it is expected that all staff will be available on campus to carry out their duties during their working week in support of these goals.

If successful you will be asked to show evidence of right to work in the UK prior to any formal offer being made. Non-British and non-Irish nationals entering the UK to undertake employment or who are currently in the UK will have to meet eligibility criteria under the points-based immigration system. The University may be able to provide sponsorship under the Skilled Worker route if relevant criteria are met. Please note, due to the complexities of the immigration system, Skilled Worker visa sponsorship is not guaranteed for every role. If you would like further information about whether this role is eligible for visa sponsorship, please contact staff.visacompliance@uea.ac.uk

The post is superannuable under the Universities Superannuation Scheme and there is an annual holiday entitlement of 30 days plus statutory (8 days) and customary (6 days) holidays. The University is committed to creating an environment where the health, welfare and safety of all students and staff is of paramount importance. The University's Safeguarding Policy addresses both child protection and safeguarding children, young people and vulnerable adults within the work of the University. Appointment will be subject to satisfactory pre-employment checks, which may include an Occupational Health assessment.

Information on the benefits of working at UEA can be found at <https://www.uea.ac.uk/about/working-at-uea>.

If you require the information contained within this candidate brochure in a different format please email staff.recruitment@uea.ac.uk

HOW TO APPLY

To apply for this vacancy, please follow the online instructions at: <https://vacancies.uea.ac.uk>

The closing date for this role is 11:59pm on **26 March 2025**.

Please note that the application form contains an Equal Opportunities section which must be completed. The Equal Opportunities information will not be made available to the selection panel and will not form any part of either the short-listing or decision making process.

It is anticipated that interviews will take place via Microsoft Teams on **4 April 2025** and we will inform you of the outcome of your application prior to this date.

Candidates should note that travel and incidental expenses incurred in attending an in-person interview will not be reimbursed.



ABOUT THE SCHOOL

Head of School: Professor Chris Atkin

Our School is designed to foster a vibrant community where students and faculty collaborate to push the boundaries of knowledge and technology.

At the School of Engineering, Mathematics, and Physics at UEA, we are dedicated to nurturing the next generation of engineers, mathematicians, and physicists. Our commitment to excellence in teaching, research, and industry collaboration ensures that our graduates are well-equipped to tackle the challenges of the future and make significant contributions to their fields.

Our Disciplines

Engineering: Bridging Academia and Industry.

Our Engineering program combines cutting-edge research, flexible teaching, and strong industry partnerships. After our integrated first year, students can specialise in mechanical, electronic, electrical, or energy engineering. Our proximity to the energy sector and manufacturing companies offers practical experience and industry engagement. Guided by our industry advisory board and through initiatives such as the Select Partnership, our students leave well-prepared for engineering careers.

Our research focusses on areas such as environmental sensing, renewable energy and energy storage, advanced droplet modelling with applications in 3D printing, and intelligent manufacturing and lifecycle technologies.

Mathematics: A Community of Passionate Learners.

Studying Mathematics at UEA means becoming part of

a close-knit community driven by a shared passion for teaching, learning, and discovery. Our modern teaching program ensures that students gain a solid grasp of mathematical principles, with the flexibility to focus on pure or applied mathematics. Beyond technical skills, we emphasize the development of critical attributes such as communication and critical thinking.

Our faculty is engaged in diverse research areas, from fluid dynamics to quantum fluids, fostering an environment of dynamic scholarship and international collaboration.

Physics: A Dynamic and Interdisciplinary Approach.

Physics at UEA emphasises a fresh, dynamic approach with strong interdisciplinary connections. Our career-focused degree programs incorporate cutting-edge research and personalised teaching. Students benefit from hands-on labs and flexible program options, including a foundation year for diverse backgrounds.

Additionally, our commitment to internationally recognised research ensures that students receive a comprehensive education in areas such as astrophysics, quantum physics, geophysics, chemical physics, and fluid dynamics.

Actuarial Science: A unique approach. Students who come to UEA to study Actuarial Science benefit from our close industry links and collaboration with the School of Computing Sciences. This means our students develop highly desirable skills in data science. They can choose to develop expertise in machine learning, artificial intelligence, and coding in Python. It also gives our students confidence that the skills they are developing are relevant to today's employers.



ABOUT THE FACULTY

The Faculty of Science is home to a vibrant community of students, staff, and visitors. Our lively environment allows high quality, innovative research across a broad spectrum of themes. This vibrant culture provides a base for our research-led teaching and underpins all our activities from influence of government policy to presentations at local schools.

Our five Schools of Study engage in world leading research. You can find out more about activities in our Schools on our Faculty [information pages](#).

- School of Biological Sciences
- School of Computing Sciences
- School of Chemistry, Pharmacy and Pharmacology
- School of Engineering, Mathematics and Physics
- School of Environmental Sciences

Our Schools are bolstered by degree courses in Actuarial Science, Natural Sciences, Physics and Geography.

We are also part of the Aurora Network, a network united by our commitment to build a different kind of inclusive university community. Learn more about the Aurora University Network on their [website](#).

“The UEA ‘Do Different’ ethos is central to Science and Engineering at UEA, which provides a dynamic and inclusive environment for teaching, research, innovation, and application. We are open to new faculty members who can complement and extend our interdisciplinary portfolio.”

Professor Robert Field

Pro-Vice Chancellor Science



OUR VALUES

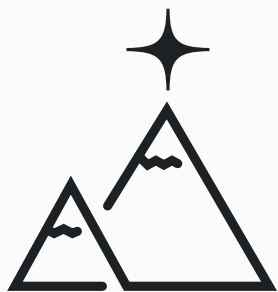
Shaped by staff, our UEA values represent a core set of standards for how we behave as an employer, drive excellence in teaching, learning and research, and collaborate as an anchor institution in our local community.

From tackling global challenges, striving for student and staff success, and creating a vibrant inclusive environment, our values are what unite us.

- ✦ AMBITION
- ✦ COLLABORATION
- ✦ EMPOWERMENT
- ✦ RESPECT



OUR VALUES (CONTINUED)



AMBITION

We are ambitious for our future success.

We are forward-thinking and brave in our approach and decisions. We make space for innovation and creativity, seizing opportunities that are responsible and sustainable. We are ambitious for the advancement of education and research.



COLLABORATION

We are collaborative in our approach.

We work together with shared purpose. We build connections, share ideas and develop new networks. We champion our regional, national and global relationships and demonstrate that together we can achieve greater goals and positively influence the world around us.



EMPOWERMENT

We empower ourselves and each other.

We develop ourselves and others, trusting people to make decisions based on their expertise and knowledge. We continually improve systems and processes to support us in working in an agile and efficient way.



RESPECT

We respect each other.

We treat everyone with respect and dignity. We value diversity and foster a community where people can express different thoughts and views. We are open to challenge, so we can learn and improve. We encourage a positive, inclusive environment where everyone has opportunities to fulfil their potential.

RESEARCH AT UEA

REF21 results showed that 91% of our research is world leading or internationally excellent ([The University of East Anglia : Results and submissions : REF 2021](#)); and the Knowledge Exchange Framework (KEF) results show UEA as above average across most indicators in our Cluster-X grouping ([Knowledge exchange framework: Dashboard \(kef.ac.uk\)](#)).

UEA research is highly cited, the 6th most cited in the UK and 41st globally (THE Research Citations rankings 2022). Ten researchers associated with the Norwich Research park and seven researchers from UEA have been named in the annual [Clarivate Web of Science Group Highly Cited Researchers list for 2022](#).

UEA is listed in the World Top 100 for research citations (Times Higher Education World University Rankings 2023) and World Top 50 (Times Higher Education Impact Rankings 2022).

REF21 Highlights – Top 20s

- 1st overall, 6th for outputs and 1st for impact - for (Anthropology and) Development Studies (8th for research power)
- 1st overall, 2nd for outputs and 1st for impact - for Agriculture, Food and Veterinary Sciences
- 3rd overall, 7th for outputs and 8th for impact – for History

- 4th overall, 14th for outputs and 5th for impact - for Earth Systems and Environmental Sciences (9th for research power)
- 4th overall, 9th for outputs and 1st for impact - for Social Work and Social Policy
- 5th overall, 8th for outputs and 7th for impact - for Area Studies

UEA is home to several world-renowned Research Centres and Networks

- Climatic Research Unit (CRU) [Climatic Research Unit - Groups and Centres \(uea.ac.uk\)](#)
- Tyndall Centre [Homepage -Tyndall Centre for Climate Change Research](#)
- Norwich Institute for Healthy Ageing (NIHA) <https://healthyageingnorwich.com/>
- Centre for Japanese Studies & Sainsbury Institute for the Study of Japanese Art and Cultures <https://www.uea.ac.uk/groups-and-centres/centre-for-japanese-studies> <https://www.sainsbury-institute.org/>
- Biomedical Research Centre <https://www.uea.ac.uk/groups-and-centres/biomedical-research-centre>
- Centre for Competition Policy <https://www.uea.ac.uk/groups-and-centres/centre-for-competition-policy>

- Norwich Institute for Sustainable Development (NISD) [Home - The Norwich Institute for Sustainable Development \(nisd.ac.uk\)](#)
- Centre for Research on Children and Families (CCRF) <https://www.uea.ac.uk/groups-and-centres/centre-for-research-on-children-and-families>
- Water Security Research Centre (WSRC) [Water Security Research Centre - Groups and Centres \(uea.ac.uk\)](#)
- Productivity East <https://www.uea.ac.uk/groups-and-centres/productivity-east>

UEA houses the British Archive for Contemporary Writing (with material from renowned authors such as Doris Lessing and Lee Child), the nationally accredited East Anglian Film Archive, Sainsbury Centre for Visual Arts, Sainsbury Institute for the Study of Japanese Arts and Culture, and Sainsbury Research Unit for the Arts of Africa, Oceania and the Americas.

OTHER ACCOLADES

- Queen's Anniversary Prizes for Higher and Further Education have been awarded to UEA for international development studies (2009), creative writing (2011) and environmental sciences (2017). Notable alumni include Sir Paul Nurse (1973, Nobel Prize for Medicine 2001), Kazuo Ishiguro (1980, Nobel Prize for Literature 2017), Michael Houghton (1972, Nobel Prize for Medicine 2020) and Sarah Gilbert (1983) who led the Oxford University team to develop a COVID-19 vaccine, approved in 2020.
- Our Doctoral College, established in 2018, hosts six Doctoral Training Partnerships and integrates Faculty and School provision for 1600 Postgraduate Research Students (including those from across the Norwich Research Park), enabling collaboration and innovation.
- We recognise our global impact and were one of the first universities to declare a climate and biodiversity emergency in June 2019. Our sustainable campus, including over 50 acres of environmentally valuable parkland, is constantly evolving with ambitions to be 100% net zero by 2045 or sooner.
- UEA is a University of Sanctuary, an accreditation given to universities that show an ongoing commitment to creating a welcoming culture of inclusivity and awareness.
- UEA was awarded the Silver Athena SWAN Award in 2019, and all our Schools hold awards at Bronze or Silver.

A vibrant place to study, learn and work, UEA is a very special place.



A SUSTAINABLE UNIVERSITY

At UEA, we are now working to create a university that will be even better in the future, and we are working to achieve net zero carbon by 2045 (or earlier). Our Sustainable Ways vision is one of a resilient university – where consumption is efficient and self-generated energy supports low carbon goals, supported by a vibrant community of world-leading researchers and inspired graduates.

At a basic level, our sustainable development means that we try to balance the ‘three pillars’ of environmental, economic and social elements.

We challenge our environmental impact through on-site energy generation and a district heating and cooling network, reducing our reliance on grid electricity and therefore fossil fuels. We promote and use recycled and ‘eco’ products such as biological cleaning materials. We champion local suppliers and ethical causes, including Fairtrade and vegan products. We seek to ensure value for money in a holistic, whole-life costing sense in our new buildings and procurement contracts.

OUR INITIATIVES

Central campaigns, such as holiday shut-downs or awareness day events, support a whole-University approach to energy saving and other initiatives.

Follow us on Twitter [@SustainableUEA](https://twitter.com/SustainableUEA)



OUR CAMPUS

UEA is based on a campus that provides top quality academic, social and cultural facilities to over 17,000 students.

Although located in 320 acres of rolling parkland, virtually no part of the campus is more than a few minutes' walk from anywhere else, so everything is close at hand – the library, nursery, health centre, supermarket (incorporating a post office), banking facilities and restaurants. Amongst the striking buildings is the UEA's Sainsbury Centre for Visual Arts, which contains the Robert and Lisa Sainsbury Collection – one of the greatest art collections formed in Europe during the 20th Century.

The University has invested in new learning and teaching and research spaces, including a celebrated new Enterprise Centre that underpins its commitment to promoting student enterprise and entrepreneurship.

Sport and Recreation plays a major part in the life of the University of East Anglia, centred around the major Sportspark facility which is one of the most successful community sport facilities in the UK. This accessible and affordable facility provides a diverse range of activities, and incorporates a 50m Olympic size swimming pool, indoor climbing wall, coaching resource centre and sports injury clinic.



NORWICH

A CITY OF STORIES

The city's motto is 'A fine city' and its strong cultural heritage has seen Norwich maintain the best of its historical character whilst developing to become one of the most vibrant and attractive cities in Europe. Norwich offers miles of riverside walks and cycle ways, and a unique collection of 1930's parks. The city is surrounded by beautiful countryside and within easy reach of the stunning Norfolk coast.

Norwich is a UNESCO World city of Literature, the first in the UK, as well as being one of the newly named Tech Cities recognising the growth of digital businesses in the region. The most prominent high-rise building, apart from the castle, is the magnificent 11th century cathedral, which still dominates the skyline. The city's medieval centre of cobbled streets remains largely intact, but there is still space for modern buildings such as the city's centrepiece, the Forum, which is a striking piece of contemporary architecture. The glass front overlooks the colourful open-air market (one of the largest in the country) and reflects the city in all its diversity.

The city is consistently rated as one of the top ten shopping venues in the UK. Norfolk and Suffolk attract thousands of visitors each summer. The famous Norfolk Broads are among the most important wetlands in Europe and a haven for rare plants, wildlife and insects. The Broads attract holidaymakers who come to navigate the intricate natural network of waterways formed by the Rivers Bure, Yare and Waveney and their tributaries.

For further information about UEA's excellent facilities, staff benefits, picturesque campus and the UEA working environment, please visit the 'Careers at UEA' microsite <https://www.uea.ac.uk/about/working-at-uea>. Additional information about living and working in the city of Norwich can be found at <https://www.workinnorwich.co.uk/>



If there is another city in the United Kingdom with a school of painters named after it, a matchless modern art gallery, a university with a reputation for literary excellence which can boast Booker Prize-winning alumni, one of the grandest Romanesque cathedrals in the world, an extraordinary new state-of-the-art public library then I have yet to hear of it. Norwich is a fine city. None finer.

STEPHEN FRY



LOCATION

Some cities you've heard of, others you have to discover. Norwich is one of the most beautiful, modern historic cities in Britain. It's a city that celebrates the independent, stimulates creativity, promotes change and encourages diversity.

UEA is a campus university located 3 miles from the centre of Norwich. Situated in the heart of Norfolk, which means it's an ideal location to explore Norwich and beyond.

BY RAIL

LONDON • 2 HOURS

CAMBRIDGE • 1 HR 15 MINS

BIRMINGHAM • 4 HOURS

Many European cities (including Paris and Amsterdam) easily accessible by train

BY ROAD

KINGS LYNN • 1 HOUR

CROMER • 45 MINUTES

SOUTHWOLD • 1 HOUR

BY AIR

NORWICH AIRPORT • 20 MINUTES

STANSTED AIRPORT • 2 HOURS

London is a major airline hub and all main international destinations are easily accessible



An internationally renowned university, UEA is ranked in the UK Top 25 (Complete University Guide 2025), UK Top 30 (The Mail 2025) and the World Top 100 (Times Higher Education Impact Rankings 2024), where it ranks in the UK Top 20 for research quality (Times Higher Education Rankings for the Research Excellence Framework 2021) and World Top 20 for Health and Wellbeing (QS World University Rankings for Sustainability 2024), reflecting the international excellence of its research environment. The University holds UK Teaching Excellence Framework Silver status.

Equality, Diversity, Inclusion and Wellbeing

The University is committed to diversifying its workforce and to the wellbeing of all our staff. For example, we already hold an Athena Swan Silver Institutional Award in recognition of our advancement towards gender equality. Further details on our broader Equality, Diversity, Inclusion and Wellbeing work can be found on our [website](#).

