



NUI Galway
OÉ Gaillimh



Senior Lecturer/Lecturer Above the Bar in Applied Mathematics (Galway University Foundation)

Full Time, Permanent Post

Contract Type B

REF: **008821**



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HR EXCELLENCE IN RESEARCH

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Senior Lecturer/Lecturer Above the Bar in Applied Mathematics (Galway University Foundation)

College	Science and Engineering
School	Mathematics, Statistics and Applied Mathematics
Post Title & Subject Area	Senior Lecturer/Lecturer Above the Bar in Applied Mathematics (GUF)
Post Duration	Permanent
Level	Senior Lecturer/Lecturer Above the Bar, Contract Type B
Reports to	Head of School

*****Candidates should indicate the level they are applying for i.e. Senior Lecturer or Lecturer Above the Bar or both.**

BACKGROUND

The School of Mathematics, Statistics and Applied Mathematics is one of six constituent Schools of the College of Science and Engineering at NUI Galway. It currently has 30 full time academic staff members and has research clusters in Applied Mathematics, Mathematics, Biostatistics and Bioinformatics. The School has a vibrant PhD programme that spans all areas of its research activity.

The School runs successful B.Sc. and B.A. programmes in all areas of the mathematical sciences, including shared programmes in Financial Mathematics and Economics and in Mathematics and Education. Approximately 120 students graduate annually with a primary degree from our School. Additionally, we teach extensively on the mathematical components of degree programmes in Engineering, Science and Business.

The School is committed to the principle of equality of opportunity in its recruitment and employment practices, and to promoting a diverse and inclusive community.

JOB ADVERTISEMENT

Applications are invited for appointment as a Foundation Research Lecturer in Applied Mathematics in the School of Mathematics, Statistics and Applied Mathematics at NUI Galway. The permanent appointment will be made on the salary scale *Above the Bar* or *Senior Lecturer* level depending on the track record and experience of the successful applicant, and will commence January 2020, or as soon as possible thereafter.

We are looking to broaden our applied mathematics research and teaching portfolio in a way that will build on our existing strengths. In particular, the appointee is expected to contribute to the research activities of the School in the field of modelling in soft tissue biomechanics. The appointee will also contribute to teaching and graduate supervision in the School, and will be expected to take a leading role in curriculum design and development.

The appointment is aligned to the research interests of the Stokes Applied Mathematics Cluster within the School, which fosters research and graduate training in mathematical modelling, and with NUI Galway's Priority Research Area of Biomedical Science & Engineering. This position places a particular emphasis on biomedical applications of solid mechanics and nonlinear elasticity. The individual appointed will be allocated a PhD studentship from the College and €10,000 as a discretionary fund for research expenses.

The successful applicant for the lectureship will have:

- A PhD (or equivalent) in Applied Mathematics/Mathematics/Physics/Engineering.
- A strong research profile in mathematical modelling of soft tissue biomechanics, as evidenced by a record of internationally recognised research accomplishments, such as research leadership roles, high-quality research papers, PI-led international research grants, teaching and/or supervision at university level, etc.
- Experience in delivering applied mathematics teaching at University level.

The duties of the successful candidate will be:

- To contribute to and develop the research activity and output of the School.
- To create collaborative links with the School of Engineering, the School of Physics, the CÚRAM Research Centre and the School of Medicine.
- In the first five years in post, to apply to at least one PI-led large grant in science (IRC, SFI, ERC, H2020, etc.), and to train for and prepare an application to at least one biomedical grant (HRB, Wellcome Trust, Irish Cancer Society, etc.).
- To contribute to the undergraduate and postgraduate teaching activities of the School.
- To engage in the supervision and education of graduate research students.
- To contribute to planning, management and external engagement.

For informal enquiries, please contact Professor Michel Destrade,
Email: michel.destrade@nuigalway.ie or telephone: +353 (0)91 493011.

Additional information on the School is available at <http://www.maths.nuigalway> and <http://www.nuigalway.ie/researchcentres/collegeofscience/stokes-cluster/>

Salary:

At Lecturer Above the Bar OR Senior Lecturer level depending on the track record and experience of the successful applicant.

Senior Lecturer: €69,617 - €97,571 p.a.

Above the Bar: €65,453- €84,522 p.a.

(applicable to new entrants effective from January, 2011)

(This appointment will be made on the Senior Lecturer and Lecturer Above the Bar scale in line with current Government pay policy)

Closing date for receipt of applications is 17:00 (Irish Time) on Tuesday 10th December 2019. It will not be possible to consider applications received after the closing date.

Garda vetting may apply.

Appointments will be conditional on work authorisation validation.

Further details are available at www.dbei.ie

For more information and Application Form please see website:

<http://www.nuigalway.ie/about-us/jobs/> Applications should be submitted online.

Please note that appointment to posts advertised will be dependent upon University approval, together with the terms of the Employment Control Framework for the higher education sector.

National University of Ireland Galway is an equal opportunities employer. Women, and other categories who are under-represented in the mathematical sciences at university level, are particularly encouraged to apply to this position. The University has endorsed the principles of the Athena SWAN Equality Charter, including a supportive and flexible working environment, with a very strong commitment to promote gender equality. NUI Galway has recently been awarded an institutional Athena SWAN Bronze Award, and the School is currently preparing its application for a departmental award.

FOUNDATION RESEARCH LEADERSHIP PROGRAMME

Central to the support of the NUI Galway Research and Innovation strategy is the attraction and retention of emerging academics across the University's key research themes. In 2016, NUI Galway, in partnership with Galway University Foundation, has developed the Foundation Research Leadership Programme to attract and support future research leaders, from the foundation of their careers, nurturing them to become research pioneers. The Foundation Research Leadership Programme is a 3-year programme to recruit the most promising research stars across NUI Galway's priority research areas. Fifteen permanent lecturer posts are being recruited over a three-year period and this lectureship is one of these posts.

The scheme has created additional capacity for NUI Galway to hire staff and to accelerate the recruitment of high performing early careers researchers, while also providing a route to channel philanthropic support for academic posts. Further strengths of the initiative include its focus on externally-validated research excellence and the alignment of allocated posts to existing priority research areas. Successful appointees in this programme are facilitated in maintaining and developing their research through being allocated a lower teaching load in the initial 5 years of their appointment.

JOB DESCRIPTION

Principal Duties and Responsibilities

The post-holder duties will include, but not be limited to, the following:

The post-holder shall undertake such teaching, examining, research and other duties as may be required by Údarás na hOllscoile, on the recommendation of the College/Colleges concerned given with the approval of the Academic Council. The post-holder shall carry out these duties under the direction of the Head of the School or of an authorised senior member of the staff of the School.

Research (Publications, Supervision, Research Funding)

- Engage in, publish, and disseminate high-quality research in Applied Mathematics, specifically in the field of modelling in biomechanics.
- Collaborate with other researchers in the Stokes Applied Mathematics Cluster to enhance the international profile of the cluster.
- Create collaborative links with the School of Engineering, the School of Physics, the CÚRAM Research Centre and the School of Medicine.
- In the first five years in post, apply to at least one PI-led large grant in science (IRC, SFI, ERC, H2020, etc.), and train for and prepare an application to at least one biomedical grant (HRB, Wellcome Trust, Irish Cancer Society, etc.).
- Develop collaborations with international researchers.
- Recruit and supervise research postgraduate students.

Teaching (Tutorial, Demonstrating, Lecturing)

- Engage in a wide range of applied mathematics teaching at undergraduate and postgraduate levels. This will include the planning and delivery of tutorial classes.
- Assess student learning, generally through the setting and marking of examinations and continuous assessment.
- Supervise Final Year projects.
- Contribute to the design and development of new modules and programmes at undergraduate and postgraduate level.
- The postholder will be required to take the Postgraduate Certificate in Teaching and Learning in Higher Education at NUI Galway in the first year of their employment (if they do not have a teaching qualification yet).
- The postholder may be asked to contribute to the development of a new Masters program in Engineering Mathematics (or Mathematical Engineering).

Contribution to School, College and University

- Contribute to administration and management, through participation in committees and by undertaking such duties as allocated by the Head of School.
- Contribute to student recruitment and student advisory events.
- Participate in the life of the School, College and University.

Contribution to Community

- Engage with the wider academic community in Ireland.
- Organise workshops, symposiums, conferences, graduate schools, etc.
- Promote interest in Applied Mathematics at primary and secondary levels of education and in the general public.

Other

- Carry out such other duties as may be required and which fall within the general ambit of the post.
- The post-holder shall be a member of College/Colleges in accordance with University Statutes.
- The hours of work are those prescribed under the Public Service Agreement in respect of Academic Staff.

The post-holder shall carry out these duties under the direction of the Head of the School or of an authorised senior member of the staff of the School.

The post-holder shall be a member of College/Colleges in accordance with University Statutes.

The hours of work are those prescribed under the Public Service Agreement in respect of Academic Staff.

ELIGIBILITY REQUIREMENTS FOR SENIOR LECTURER APPOINTMENT

Essential Requirements

- A PhD (or equivalent) in Applied Mathematics/Mathematics/Physics/Engineering.
- A strong, independent and current research profile in mathematical modelling of soft tissue biomechanics, evidenced by a record of internationally recognised research accomplishments, such as research leadership roles, high-quality research papers, PI-led international research grants, teaching and/or supervision at university level, organisation of conferences and workshops, editorial duties, etc.
- Evidence of ability to secure external research funding.
- Proven capacity to provide academic leadership.
- Experience in leading and managing research.
- Experience of supervising postgraduate students' research projects.
- Demonstrable enthusiasm for teaching, and a broad and versatile teaching profile.
- Experience of course design and development at third level.
- Evidence of collegiality and inter-disciplinarily.
- Proven ability to work effectively as part of a team and to motivate others.
- Evidence at interview of excellent interpersonal and communication skills.
- A five-year research plan outlining an ambition appropriate for a *Senior Lecturer* will be considered as part of the assessment process during the recruitment stage.

Desirable Requirements

- Links to industrial/medical research.
- Experience in computer simulation and/or experimental testing of soft tissues.
- Experience of PhD supervision and completion.
- Track record in running or helping to run an academic centre/unit.
- A teaching qualification.
- Experience in the management of an undergraduate or postgraduate programme.

ELIGIBILITY REQUIREMENTS FOR LECTURER ABOVE THE BAR APPOINTMENT

Essential Requirements

- A PhD (or equivalent) in Applied Mathematics/Mathematics/Physics/Engineering.
- A strong, independent and current research profile in mathematical modelling of soft tissue biomechanics, evidenced by a record of internationally recognised research markers, such as research leadership roles, high-quality research papers, national or international research grants, teaching and/or supervision at university level, etc.
- Evidence of potential to secure external research funding.
- Demonstrable enthusiasm for teaching and capacity to develop a broad and versatile teaching profile.
- Evidence of collegiality and inter-disciplinarily.
- Evidence at interview of excellent interpersonal and communication skills.
- A five-year research plan outlining an ambition appropriate for a *Lecturer Above the Bar* will be considered as part of the assessment process during the recruitment stage.

Desirable Requirements

- Post-doctoral research experience.
- Links to industrial/medical research.
- Experience in computer simulation and/or experimental testing of soft tissues.
- Experience of supervision of research postgraduate students.
- A teaching qualification.
- Experience of course design and development.

The appointment will be made to the School Mathematics, Statistics and Applied Mathematics.

****Please refer to separate information booklet for details on application and appointment procedure****

Competency Framework for Senior Lecturer Roles at NUI Galway

<p>Excellence in Research</p> <p><i>The Senior Lecturer furthers their discipline and contributes to the body of knowledge in their area through planning, carrying out and publishing/ disseminating their own high quality research, building and leading research groups and providing supervision and support for postgraduate students to enable them to produce quality research. They keep up to date with relevant developments in their field and network and collaborate with others, both internally and externally, to optimise the value and relevance of the research being produced and to maximise the School's/Discipline's ability to attract research funding.</i></p>	<p>CORE</p>	<p>Personal Effectiveness</p> <p><i>The Senior Lecturer is enthusiastic about their discipline and is committed to making their best personal contribution through employing excellent planning and organising, communication and decision making skills to achieve their goals and through working hard and being flexible in order to meet the multiple and changing demands of the Lecturer/Senior Lecturer role.</i></p>	<p>DEVELOPING</p>	<p>Strategy & Vision</p> <p><i>The Senior lecturer should contribute to the strategic development of the discipline by developing a strong awareness of the wider environment, how the discipline is developing and how the School/Discipline can develop in the long term to optimise its contribution. He /She must have the ability to make a strong case for the development of new programmes or engaging in joint programmes or collaborations that they feel will add long term value to the School/Discipline.</i></p>
<p>Excellence in Teaching</p> <p><i>The Senior Lecturer develops and delivers quality teaching programmes which engage and inspire students at all levels and maximises their learning. They are confident in using a range of teaching techniques, are open to innovations in teaching and are focused on continually developing their own teaching skills.</i></p>	<p>DEVELOPING</p>	<p>Leading Others</p> <p><i>The Senior Lecturer must work well with others, providing leadership and direction to students, colleagues and support staff in relation to projects or areas of work that they are leading on. They effectively encourage, support and manage the contributions of others to deliver results for the discipline and to ensure that high standards are met.</i></p>	<p>CORE</p>	<p>Collegiate & Community Contribution</p> <p><i>The Senior Lecturer values and engages in a collegiate approach to working with others, within their own discipline, school and university and also within the wider external community. S/he actively seeks to build effective networks and is willing to contribute their time and expertise to a range of broader university wide or community projects.</i></p>

Competency Framework for Lecturer (Contract Type B) Roles at NUI Galway

	Academic Excellence		Leadership Excellence		Organisational Excellence
CORE	<p>Excellence in Research</p> <p><i>The Lecturer (Contract Type B) furthers their discipline and contributes to the body of knowledge in their area through planning, carrying out and publishing/ disseminating their own high quality research, building and leading research groups and providing supervision and support for postgraduate students to enable them to produce quality research. They keep up to date with relevant developments in their field and network and collaborate with others, both internally and externally, to optimise the value and relevance of the research being produced and to maximise the School's/Discipline's ability to attract research funding.</i></p>	CORE	<p>Personal Effectiveness</p> <p><i>The Lecturer (Contract Type B) is enthusiastic about their discipline and is committed to making their best personal contribution through employing excellent planning and organising, communication and decision making skills to achieve their goals and through working hard and being flexible in order to meet the multiple and changing demands of the Lecturer (Contract Type B) role.</i></p>	CAPACITY TO DEVELOP	<p>Strategy & Vision</p> <p><i>The Lecturer (Contract Type B) should contribute to the strategic development of the discipline by developing a strong awareness of the wider environment, how the discipline is developing and how the School/Discipline can develop in the long term to optimise its contribution. He /She must have the ability to make a strong case for the development of new programmes or engaging in joint programmes or collaborations that they feel will add long term value to the School/Discipline.</i></p>
CORE	<p>Excellence in Teaching</p> <p><i>The Lecturer (Contract Type B) develops and delivers quality teaching programmes which engage and inspire students at all levels and maximises their learning. They are confident in using a range of teaching techniques, are open to innovations in teaching and are focused on continually developing their own teaching skills.</i></p>	CAPACITY TO DEVELOP	<p>Leading Others</p> <p><i>The Lecturer (Contract Type B) must work well with others, providing leadership and direction to students, colleagues and support staff in relation to projects or areas of work that they are leading on. They effectively encourage, support and manage the contributions of others to deliver results for the discipline and to ensure that high standards are met.</i></p>	DEVELOPING	<p>Collegiate & Community Contribution</p> <p><i>The Lecturer (Contract Type B) values and engages in a collegiate approach to working with others, within their own discipline, school and university and also within the wider external community. S/he actively seeks to build effective networks and is willing to contribute their time and expertise to a range of broader university wide or community projects.</i></p>