**Postdoctoral Researcher in Statistics**

**School of Mathematical and Statistical Sciences**

**Ref. No. NUIG RES 184-22**

Applications are invited from suitably qualified candidates for a full-time 30-month position as a Postdoctoral Researcher in Statistics in the School of Mathematical and Statistical Sciences at the National University of Ireland, Galway.

This position is funded by Science Foundation Ireland and is available from July 2022 to contract end date of December 2024. This is a co-led project with Dr. Andrew Simpkin at NUI Galway and Prof. Norma Bargary at the University of Limerick The successful candidate will join Dr. Simpkin’s research group at the School of Mathematical and Statistical Sciences at NUI Galway. This group’s aim is to foster new collaborative research, in particular on problems that arise through the application of cutting-edge mathematical and statistical modelling techniques. The candidate will also work closely with Prof. Bargary and collaborators at UL, and collaborators at the University of Bristol.

<https://www.researchgate.net/scientific-contributions/Andrew-Simpkin-2028645884>

<https://www.researchgate.net/profile/Norma_nee_Coffey>

<https://www.nuigalway.ie/science-engineering/school-of-maths/>

**Job Description:**

Supported by Science Foundation Ireland, NUI Galway wishes to appoint a Postdoctoral Researcher to grow our research programme in developing statistical models and algorithms to analyse high-dimensional, multivariate data measured using sensor technology. Such data are now routinely measured in diverse sectors including medicine, the automotive industry, sports, manufacturing and the Internet-of-Things. The development of interpretable, computationally efficient statistical models suitable for complex data of this type has become an important enabling technology, with multiple applications in both academic and industry-relevant questions. The central objectivesof the project are to develop new, robust statistical models to describe the behaviour and relationships between multivariate, high-throughput sensor data and their temporal derivatives (i.e. velocity and acceleration), develop innovative prediction models for multivariate sensor data, construct novel clustering algorithms to identify and summarise important structures in the data, and demonstrate increased computational efficiency, so that the methodology is applicable to modern, large-scale datasets.

**Duties:**

* Contribute to the research programme under general guidance of a Principal Investigator.
* Define research objectives and proposals for own (or joint) research in line with research strategy.
* Conduct individual and/or collaborative research projects in a variety of settings (laboratory, creative performance, field, clinical setting).
* Determine appropriate methodologies for research, with advice and support as appropriate.
* Assess research findings for the need/scope for further investigations / commercial exploitation.
* Translate knowledge of advances in the subject area into research activity.
* Plan, co-ordinate and implement research project (this may include managing a small research team/co-ordinating other researcher activity).
* May identify sources of funding and pursue the process of securing funds.
* May work with PI to contribute to proposals for developmental purposes.
* Write up results from own research activity.
* Contribute to the research project’s dissemination, in whatever form (report, papers, chapters, book)
* Present information on research progress and outcomes e.g. to bodies supervising research; conferences, steering groups; other team members, as agreed with the PI / project leader.
* Where appropriate, work with PI to register patents to protect intellectual property.
* May act as co-supervisor or be a member of a supervision panel.
* May participate in limited teaching hours for own development. The extent of this must not adversely impact the primary research role.
* May act as mentor to foreign students on undergraduate placement.
* Knowledge and understanding of the policy, practices and procedures, relevant to the role, which may include broader University/ sector/ external sponsor or funder (e.g. Commercial Awareness, Research Ethics, Knowledge Transfer, Patents, Intellectual Property Rights, Health and Safety, Equal Opportunities & Diversity).
* Legal requirements regarding data protection and confidentiality data protection requirements.

**Essential Requirements: (i.e criteria for shortlisting (minimum of four)**

* PhD (completed, or in final stages of completion) in Statistics, Mathematics, Applied Mathematics, Data Science, or related discipline with significant statistical content.
* Demonstrable programming skills in, e.g., R, Matlab, Hadoop, SQL, Python.
* Strong communication skills and well-developed ability to communicate technical concepts to non-experts.
* Evidenced ability to collaborate with other researchers in the University and industry partners, and/or experience of participation in interdisciplinary research projects.

**Desirable Requirements: (i.e criteria for shortlisting (minimum of four)**

* Knowledge of mixed effect models and/or functional data analysis methods.
* Experience of and/or publications in the statistical modelling of high-dimensional data.
* Excellent interpersonal, project management and people management skills.

**Salary**: €39,523 to €51,034 per annum per annum pro rata for shorter and/or part-time contracts (public sector pay policy rules pertaining to new entrants will apply).

**Start date**: Position is available immediately

**Continuing Professional Development/Training**:

Researchers at NUI Galway are encouraged to avail of a range of training and development opportunities designed to support their personal career development plans.

Further information on research and working at NUI Galway is available on [Research at NUI Galway](http://www.nuigalway.ie/our-research/)

For information on moving to Ireland please see [www.euraxess.ie](http://www.euraxess.ie)

Further information about School is available at

<https://www.nuigalway.ie/science-engineering/school-of-maths/>

Informal enquiries concerning the post may be made to Dr. Andrew Simpkin [andrew.simpkin@nuigalway.ie](mailto:andrew.simpkin@nuigalway.ie)

**NB**: Gárda vetting is a requirement for this post (as appropriate to Child Protection Policy)

**To Apply:**

Applications to include a covering letter, CV, and the contact details of three referees should be sent, via e-mail (in word or PDF only) to Dr. Andrew Simpkin (andrew.simpkin@nuigalway.ie)

Please put reference number **NUIG RES 184-22** in subject line of e-mail application.

**Please include the following information in your application:**

* Full title of PhD thesis
* Full list of publications including weblinks to publications

**Closing date for receipt of applications is 5.00 pm on the 5th August 2022.**

We reserve the right to re-advertise or extend the closing date for this post.

National University of Ireland, Galway is an equal opportunities employer.

All positions are recruited in line with Open, Transparent, Merit (OTM) and Competency based recruitment

'NUI Galway provides continuing professional development supports for all researchers seeking to build their own career pathways either within or beyond academia.  Researchers are encouraged to engage with our Researcher Development Centre (RDC) upon commencing employment - see [www.nuigalway.ie/rdc](http://www.nuigalway.ie/rdc) for further information.'

