



Maynooth University

Ollscoil Mhá Nuad

Department of Mathematics and Statistics

Details of the Scholarship Award

The Department of Mathematic and Statistics at Maynooth University is pleased to announce that a PhD Scholarship will be available for a suitably qualified and successful applicant intending to commence their PhD studies in October 2025.

The successful candidate will be part of an EPA funded project on **Estimating and Projecting Population Exposure to Extreme Sea Levels in Ireland, led by Prof. Niamh Cahill.**

The core concept of this project will be to bring together and deploy cutting edge approaches to small-area population estimation and modelling of population movements in the context of examining population exposure to extreme sea levels (ESLs) in low-elevation coastal zones (LECZ) in Ireland. In so doing insight will be developed into population movements from vulnerable coastal communities to the destinations of these potentially displaced persons. This is critical for informing decision making related to coastal vulnerability and coastal flood-defence infrastructure and for preparing landlocked areas to accommodate potential waves of coastal migrants. With this in mind the objectives of our project are:

1. Enhanced Population Exposure Assessment: Improve existing methodologies for assessing population exposure to sea-level rise and ESL events at small area levels, accounting for spatial variations and demographic characteristics to better inform adaptation planning.
2. Assessment of Climate-Induced Migration Trends: Conduct a comprehensive analysis of the trends in internal migration within Ireland to understand the drivers, patterns, and impacts and project potential future trends under scenarios where sea-level rise and sea level extremes drive a climate-induced migration.

Value of PhD Scholarship Award

The award is fully funded for 4 years, commencing October 2025 and running to completion in September 2029. The following funding is committed:

- Student stipend: €25,000 per annum
- Annual Tuition Fees Support
- Travel Costs: €1,250 per annum.

Duration of PhD Scholarship Award

The scholarship is awarded for 4 years of study, subject to satisfactory annual academic progression.

Role of the student

The project is organised around several tasks, including the collation of key datasets and the development of methodological approaches for:

1. Small area population estimation for low elevation coastal zones in Ireland.
2. Estimation and projection of population exposure to sea level extremes.
3. Estimation of movement patterns for coastal populations in areas most exposed to extreme sea levels (ESLs), accounting for demographic information.

The PhD duties will include:

- Working under the supervision of Prof. Niamh Cahill and Dr. Monica Alexander.
- Undertaking aspects of data collection and statistical analysis necessary to achieve the project objectives.
- Preparing and presenting research findings at project meetings, academic conferences, and workshops.
- Writing peer-reviewed journal articles and contributing to project reports.
- Collaborating with project partners and stakeholders as required.
- Participating in training and development activities relevant to the research and academic progression.

Eligibility Criteria for Applicants

- BSc (Hons) or MSc (2.1 grade or above, or equivalent) in Statistics, Mathematics, or a related discipline.
- Strong computational skills.
- Experience programming in R and/or Python.
- Excellent written and verbal communication skills in English.

Application and Selection Process

Send a single PDF containing your CV and a letter of interest, including the names and emails of two academic references, to: Niamh.cahill@mu.ie

Applicants who are non-native speakers of the English language must provide written evidence of competency in the English language that satisfy the programme-specific requirements set out by set out by [Maynooth University](#). All scholarship Awards are conditional on approval for registration by the University.

Informal queries can be sent to Niamh.cahill@mu.ie

Closing Date: Please apply by 5:00 p.m. on Sunday, 17 August, 2025.

Only shortlisted candidates will be contacted.

Please submit applications directly to: Niamh.cahill@mu.ie

Equality & Diversity

Maynooth University is an equal opportunities employer and is committed to equality, diversity, and inclusion. Learn more:

[Equality and Diversity Policy](#)

[Disability Employment Policy](#)

As an Athena SWAN Bronze Award holder, we welcome applications from all qualified individuals.

