 

**PHD OPPORTUNITY AT THE HAMILTON INSTITUTE AND ICARUS, MAYNOOTH UNIVERSITY, KILDARE, IRELAND**

The Hamilton Institute at Maynooth University are seeking to recruit a funded PhD student in the area of statistics and machine learning applied to climatology and sea level rise. The project is in conjunction with the Irish Climate Analysis and Research Unit (ICARUS). The Hamilton Institute is dedicated to providing a bridge between mathematics and its applications in ICT, biology and other disciplines. Founded in 2001 with support from Science Foundation Ireland, the Hamilton Institute has been internationally recognized for its work across communication networks, machine learning, mathematical biology and fundamental mathematics.

The ethos of the Institute is the application of mathematics to solve real-world problems. Researchers at the Institute have strong industry links and have worked on national and international projects funded by groups including SFI, the HEA, the EU's Horizon 2020,  and Enterprise Ireland. Other collaborators have included researchers at IBM, CERN and MIT. The Institute continues to tackle complex questions across multiple areas of research and industry with a number of significant successes over the last 15 years.

**Project title: Modelling sea level rise in Ireland from sedimentary data and ocean current models (supervisors Prof Andrew Parnell and Dr Niamh Cahill)**

The candidate will work with Prof Andrew Parnell and Dr Niamh Cahill’s research group in statistics and machine learning in the Hamilton Institute, and also as part of the wider group funded by the Marine Institute for the A4 project involving Trinity College Dublin and University College Cork. The research programme will involve analysing sedimentary data of proxy sea level indicators, and combining them with numerical models of Atlantic circulation. The successful student will develop methodology in the areas of Bayesian statistics, spatial modelling, and multivariate analysis.

**All applicants must have**

* Relevant 2:1 degree (or higher) in Mathematics, Engineering, Computer Science, Statistics, Machine Learning, Data Science, or similar qualification
* Ability to code in one or more of Matlab, C, R or Python
* Strong linear algebra and calculus skills
* Excellent written and verbal communication and presentation skills in English

The studentship is for 48 months and include a tax free stipend of €18,500 p.a. and the payment of academic fees up to a maximum of €5,500 per annum, as well as a computer and travel allowance.

**Application Procedure:** send a curriculum vitae and a cover letter to hamilton@mu.ie with **A4 PHD** in the subject line.