Job Description

College	Science
School	Mathematical Sciences
Post Title	UCD Post-doctoral Research Fellow Level 1
Project	MULTIWAVE
Post Duration	18 months
Reports to	Frederic Dias and Head of School
HR Reference No.	006681-PD1
HR Administrator	Sarah Dunne

Position Summary

This post is within the multidisciplinary research project MULTIWAVE funded by the European Research Council from 2012-2016 to investigate the physics of rogue waves in hydrodynamics and optics. By studying the physical similarities between extreme dynamics in these two systems, the aim is to generate new insight into the generation mechanisms of the infamous and destructive oceanic rogue waves. MULTIWAVE is a collaborative project between two partners: University College Dublin in Ireland and the CNRS Institute FEMTO-ST in Besançon, France.

The main aim of this particular post is the development of numerical and statistical techniques for the analysis of highest-amplitude extreme events. The candidate will use both direct numerical simulations of the free surface Euler equations and third generation wave models such as Wavewatch III.

This is a research focused role, where you will conduct a specified programme of research supported by research training and development under the supervision and direction of a Principal Investigator. The primary purpose of the role is to further develop your research skills and competences, including the processes of publication in peer-reviewed academic publications, the development of funding proposals, the mentorship of graduate students along with the opportunity to develop your skills in research led teaching.

Salary: €33,975 - €41,181 per annum
Appointment on the above range will be dependent on qualifications and experience

Principal Duties and Responsibilities

- Conduct a specified programme of research and scholarship under the supervision and direction of your Principal Investigator.
- Engage in appropriate training and professional development opportunities as required by your Principal Investigator, your School or Institute, or the University.
- Engage in the dissemination of the results of the research in which you are engaged as directed by and with the support of and under the supervision of your Principal Investigator.
- Engage in the wider research and scholarly activities of your research group, School and Institute.
- Mentor and assist, as appropriate and as directed, the research graduate students in your group, School and Institute.
- Carry out administrative work associated with your programme of research.

Selection Criteria

Selection criteria outline the qualifications, skills, knowledge and/or experience that the successful candidate would need to demonstrate for successful discharge of the responsibilities of the post. Applications will be assessed on the basis of how well candidates satisfy these criteria.

Mandatory

- PhD in Applied Mathematics or Engineering (if in an area relevant to the present project) at commencement of post;
- A demonstrated commitment to research and publications;
- An understanding of the operational requirements for a successful research project;
- Evidence of research activity (publications, conference presentations, awards) and future scholarly output (working papers, research proposals, and ability to outline a research project.
- Excellent Communication Skills (Oral, Written , Presentation etc);
- Excellent Organisational and Administrative skills including a proven ability to work to deadlines.

The PD1 position is intended for early stage researchers, either just after completion of a PhD or for someone entering a new area for the first time. If you have already completed your PD1 stage in UCD or will soon complete a PD1, or you are an external applicant whose total Postdoctoral experience, inclusive of the duration of the advertised post, would exceed 4 years, you should not apply and should refer to PD2 posts instead.

Desirable

- Experience in computational fluid mechanics
- Experience in numerical met-ocean models: WAVEWATCH, SWAN, ROMS, WRF
- Experience in meteorological data analysis and visualization
- Experience in ocean waves
- Experience in statistics
- Experience in setting own research agenda

Further Information for Candidates

Supplementary information

The University:	http://www.ucd.ie/aboutucd.htm
The College of Science:	http://www.ucd.ie/science/
The School of Mathematical Sciences:	http://mathsci.ucd.ie/
European Research Council – Supporting top researchers from anywhere in the world:	http://erc.europa.eu/advanced-grants

UCD offers a comprehensive **Research Careers Framework** in line with the Advisory Science Council Report '*Towards a Framework for Researcher Careers*'. This model provides a structured and supportive **Career and Skills Development** system designed to ensure that Post-docs in UCD are able to plan their careers and prepare for future opportunities in academia, industry or the public sector. For more information, please click here.

Relocation Expenses

■ Will not apply

☐ Will be applied in accordance with the UCD policy http://www.ucd.ie/hr/policies/#d.en.31150

Informal Enquiries ONLY to:

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