



Candidate Information

Position:	Senior Academic position (Reader/Professor) in Computational Plasma Physics
School/Department:	School of Mathematics and Physics
Reference:	19/107300
Closing Date:	Monday 29 April 2019
Salary:	Professor salary will be determined in accordance with the Professorial ranges as applied within the University
Anticipated Interview Date:	Monday 20 May 2019

JOB PURPOSE

We are seeking to fill a senior position in the Centre for Plasma Physics with an exceptional academic, able to demonstrate a record of outstanding, internationally recognised leadership in research and, at Professor level, a strong track record in securing major research funding and managing research projects. As a senior member of the Academic staff in the School of Maths and Physics, you will lead computational research within the Centre for Plasma Physics (CPP) in areas complementing and supporting current activities within the Centre – which include research in laser-plasma interactions, high energy density physics, high-field science and laboratory astrophysics. You will also deliver and develop teaching and assessment activities within the School of Mathematics and Physics at undergraduate and postgraduate level, as well as participate in leadership roles within the School and University commensurate with the academic profile.

MAIN ACTIVITIES/RESPONSIBILITIES:

1. Research/Scholarship (40%-60% of time spent)

- To lead and undertake research in computational plasma physics that is of internationally quality in terms of originality, significance and rigour, and complements and supports current activities within the Centre for Plasma Physics
- To secure external funding through research applications at a level commensurate with seniority and specific research area.
- To provide leadership in research or scholarship which will enhance the national and international reputation of the School
- To develop and maintain an excellent international research profile, evidenced by relevant measures of esteem and peer reviews of research output quality and impact
- To attract and supervise an active team of post-graduate research students and post-doctoral research fellows

2. Education (20%-40% of time spent)

- To deliver teaching and assessment activities within the School of Mathematics and Physics, including lectures, setting/marking coursework and practicals to undergraduates and postgraduates.
- To provide leadership in curriculum development in Physics as expected by a senior member of staff
- To undertake initiatives to improve the overall student experience, by new methods of assessment, feedback, and student engagement.

3. Academic Leadership (10-20% of time spent)

- To participate in relevant committees at the School, Institute, Faculty and University level.
- To carry out designated School educational and research related administrative duties including, for example, committee work, working group leadership or course administration.
- To contribute to senior management activities by taking on appropriate roles such as Director of Education, Director of Research, Director of Internationalisation, Module/Year/Programme Co-ordinator or other recognised official University roles
- To act as mentor or appraiser to colleagues advising on their personal development and ensuring that they are meeting the standards required
- To actively engage with and contribute to the School's internationalisation efforts with a view to attract a significantly higher number of international students.
- To participate in relevant committees at the School, Faculty and University level

- To undertake senior external service commitments commensurate with the Reader/Professor academic profile
- To be an advocate and an ambassador of the University

ESSENTIAL CRITERIA

- Sustained record of publication of internationally recognised research outputs, with demonstrable impact on leading researchers and the research agenda in one or more of the following: Laser-matter interaction physics, high energy density physics, laboratory astrophysics
- Evidence of leading successful research funding applications
- Evidence of successful doctoral or post-doctoral supervision
- Proven track record of earning research income as Principal Investigator
- Strong track record in securing and managing large scale grants (Professor)
- Proven expertise and track record in numerical plasma simulations
- Proven ability to engage with experimental teams
- Evidence of international recognition and esteem
- Teaching experience commensurate with career stage, including undergraduate or postgraduate teaching, project supervision, assessment and feedback experience
- Evidence of excellent standard of teaching performance as judged by evaluation methods including student feedback and peer-review
- Evidence of successful innovation in the development or modernisation of the curriculum with an impact at departmental level
- A strong track record of leadership, demonstrated as evidence of major initiatives that significantly improved education, research or administrative processes
- Sustained senior academic leadership in the wider research or scholarship community with demonstrable impact on the strategic direction of that community (Professor)
- Evidence of providing leadership, line management and mentoring to staff (Professor)
- Leadership qualities reflecting our core values
- Ability to communicate complex information effectively.
- Ability to communicate effectively in English, both orally and in writing

DESIRABLE CRITERIA

- Completed PGCHET or an equivalent teaching qualification
- Evidence of management and delivery of significant projects within timescales and budgets
- Coordination of large, multi-investigator projects
- Successful creation of undergraduate or postgraduate programmes
- Evidence of successfully setting and then delivering on a strategic vision in an educational or an R&D context (Professor)
- Evidence of social engagement and outreach activities
- Evidence of strong societal and economic impact derived from research or educational initiatives