

## Academic Role Profile

<b>Job Title:</b>	Senior Lecturer
<b>Responsible to:</b>	Head of Department or Faculty
<b>Responsible for:</b>	Research staff employed on programmes and awards directed by the post holder. May have supervisory responsibility for other staff.

### **Job Summary and Purpose**

To develop a personal research portfolio in line with the Faculty's research strategy, to take a lead in teaching at undergraduate and postgraduate level, and to participate in Faculty and University administration.

### **Main Responsibilities/Activities**

#### **To develop the research activities of the Faculty and the University (in collaboration with others in the discipline where appropriate) by:**

Developing the research activities of the Faculty and the University by maintaining an expert reputation in own subject area independently and/or in collaboration with others as part of a larger research team, sustaining a track record of published research findings.

Planning, co-ordinating and leading research activities in accordance with a specific project plan through a research team or a group of staff involved in research. Managing the financial and physical resources associated with the research activities. Supervising and guiding the work of staff and research and doctoral students on own specialist area.

Leading innovative research proposals (as a self-contained item or as part of a broader programme), identifying sources of funding, submitting funding bids, and gaining positive reviews for these. Planning the research to be undertaken

Publishing original research in appropriate journals or other media, as appropriate.

Engaging in external academic activities in accordance with the Faculty's research strategy at a national level. Such activities may include creative work, the generation of research funding, and contribution to professional meetings and societies.

Contributing to the wider academic community general life and work of the University through, for example, editing journals, refereeing papers, external examining, involvement in professional bodies.

Attending appropriate conferences for the purpose of disseminating research results or personal development

Leading funding bids which develop and sustain research support for the specialist area and advance the reputation of the Faculty and the University.

Sustaining and developing professional expertise and maintaining the requirements for

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registration with the appropriate body (*for academics with clinical links only*).

### **To develop the teaching activities of the Faculty by:**

Leading the development of new teaching methods and designing programme units and taking responsibility for the quality of programme units.

Planning, delivering and critically reviewing a range of teaching and assessment activities including lectures.

Training and supervising of students (including research students) and acting as a tutor for industrial/professional training year students, and acting as an external examiner, according to own area of subject specialism.

Setting/marking programme work, practical sessions, supervisions, fieldwork and examinations according to own area of subject specialism, and providing appropriate feedback to students.

Taking part in activities such as validating and examining in relation to the University's associated institutions.

### **To engage in scholarship by:**

Continually updating knowledge and understanding in the field or specialism. Extending, transforming and applying knowledge acquired from scholarship to teaching, research and appropriate external activities.

### **To undertake pastoral care of students by:**

Using listening, interpersonal and pastoral care skills to deal with sensitive issues concerning students and provide support. Appreciating the needs of individual students and their circumstances. Acting as personal tutor and giving first line support. Taking responsibility for dealing with referred issues for students within own educational programmes, and providing first line support for colleagues, referring them to sources of further help if required.

### **To contribute to the efficient management and administration of the Faculty, the University and the wider academic community by:**

Performing such personal administrative duties throughout the Faculty and the University as are recognised by the University as properly within the remit of the work of academic staff, such as Director of Studies, Examination Office, Time-tabling Officer.

Advising, supervising and giving guidance to other staff.

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### Person Specification

#### The post holder must have:

A higher professional qualification, normally a doctoral degree

Proven academic leadership

Achievement in scholarship and research at a national level

Evidence of a leadership/development role in high quality teaching at undergraduate and postgraduate level

Evidence of making a contribution to the administration and general life and work of an academic institution

### Relationships and Contacts

The post holder will be a member of such Faculty Committees as may be relevant to their administrative duties, for example Faculty Board of Studies and Examination Board. New appointees will be assigned a senior colleague to aid their integration into the Faculty and university. Research priorities will be agreed within the strategic framework of the research theme of which they are a member. Teaching and administrative duties will be allocated by the Head of Faculty, within the context of the teaching programmes agreed by the Faculty Learning and Teaching Committee.

### Special Requirements

To be able to participate in residential field work, in the UK or overseas, according to own area of subject specialism.

The post holder is expected to work outside normal office hours as necessary.

#### All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
  - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
  - Following local codes of safe working practices and the University of Surrey Health and Safety Policy

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- Undertake such other duties within the scope of the post as may be requested by your Manager.

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### Addendum

This document provides additional information relating to both specific aspects of the post/Faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Job Purpose.

#### Job Title:

Senior Lecturer in Theoretical Nuclear Physics

### **Background Information/Relationships**

The post holder is expected to complement our existing strengths in the theory of nuclear reactions and structure. In particular, expertise in developing reaction theories would be an advantage. The post holder is expected to have the potential to collaborate with colleagues, particularly in the areas listed below:

- Studies at current radioactive ion beam facilities around the world, such as RIBF at RIKEN; Preparation to exploit future facilities such as FRIB at MSU and FAIR at GSI; to apply theoretical developments to understand results of experimental investigations at such facilities
- Development of new theoretical methods to understand the nature of the atomic nucleus and the nuclear many-body problem
- Training of young researchers through participation in schools for PhD students and PDRAs in concert with international networks such as the TALENT schools;
- Within the University (and potentially, wider afield) in developing excellent taught programmes at undergraduate level

You should be able to develop and communicate a clear vision of a new research programme for Surrey that best fits the needs of the University, as well as the wider nuclear physics community. Furthermore, you should have the ability to secure funding and research council support to deliver this new programme. The group's ongoing research is primarily funded through STFC consolidated and project Grant support.

The Surrey Nuclear Physics Group consists of 8 academic staff and several research-active emeritus staff. As part of the new departmental initiative, we are looking to increase academic staff numbers to a total of 10 balanced equally across experiment and theory.

The Nuclear Physics Group at Surrey has thrived through a wide range of collaborative endeavours both internally and internationally, and as such, the post-holder would be encouraged to develop new and existing scientific collaborations in nuclear physics research. In particular, there is a strong link between experimental research and nuclear theory at Surrey, with potential to extend interactions to other subject areas, such as the newly established astrophysics group, which is fast gaining an international reputation for excellence.

### Background Information

#### Faculty

The University of Surrey is organised into three Faculties. The Faculty of Engineering and Physical Sciences (FEPS) is the largest Faculty and comprises the Departments of Chemistry, Chemical and Process Engineering, Civil and Environmental Engineering, Computer Science, Mathematics, Physics, Electrical and Electronic Engineering and Mechanical Engineering Sciences. Within these disciplines we enjoy a reputation for excellence in research and teaching, allied to a strong enterprise culture, numerous industrial interactions and

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partnerships, and an unrivalled record of graduate employment. We seek to recruit the best academic staff from around the world. Our strong research ethos is exemplified by our large and very vibrant postgraduate community (640 research students and over 800 taught postgraduates), support by outstanding facilities. We believe in the principle that a University should contribute to the cultural wealth of society by developing the fundamental sciences, whilst also developing the technological applications that will improve our overall quality of life.

### Department of Physics

The Department of Physics at the University comprises approximately 32 academic (faculty) staff, 30 postdoctoral researchers, 100 postgraduate students (MSc and PhD) and 400 undergraduate students. The Department has been ranked in the top 10 UK Physics Departments in a number of national league tables.

The Department has a strong record in taught postgraduate provision, and along with the rest of the University, it has an outstanding graduate employment record. A number of academic staff have received prestigious awards and hold personal Fellowships: Professor Al-Khalili was awarded the Royal Society Faraday medal and is regularly seen and heard on television and radio; Professor Sellin holds an AWE William Penny Fellowship; Professor Gieles holds an ERC starting Grant, Dr Rios Huguet holds an STFC Advanced Fellowship and Dr Lotay holds an Ernest Rutherford Fellowship. Professor Regan has a joint appointment with the National Physical Laboratory.

The Department of Physics has existing strengths in Nuclear Physics, Soft Matter, Photonics, Astronomy, Radiation Sensors and Medical Physics research. These activities are brought together within research centres such as the Centre for Nuclear and Radiation Physics and the Advanced Technology Institute (ATI). The Faculty and the Department strongly encourage research collaborations across discipline boundaries. Surrey has recently established a plan for supercomputer facilities at the University and nuclear theory is supported by dedicated equipment that has been obtained from specific STFC capital funds.

### **Person Specification**

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Job Purpose.

	<b>Essential/ Desirable</b>
A higher research degree (PhD)	E
Internationally Excellent research performance (continuing publication record, and evidence of actual/potential ability in external research grant income generation)	E
Potential and willingness to develop a track record in academic leadership	E
Ability to successfully supervise doctoral students	E
Evidence of high quality teaching	E
Evidence of scholarly contributions to conferences, professional meetings and societies at an international level, and evidence of achievements in other external activities at an international level	D

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Excellent communication, inter-personal and networking skills

D

### Key Responsibilities

This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Job Purpose.

1. Making a positive contribution to the Faculty's strong research profile and to appropriate postgraduate and undergraduate teaching programmes.
2. Engaging in scholarship to remain at the forefront of intellectual activity in an area of theoretical nuclear physics
3. Dissemination of research activities through written publication and conference presentations
4. Supporting undergraduate student learning through ways such as developing and delivering taught module content; supporting the Department's successful MPhys Research Year programme.
5. Supporting the Department's outreach activities, such as participation in Open Days, Applicant Days, and its public lecture series

**N.B. The above list is not exhaustive.**