

Research Role Profile

Job Title:	Research Fellow A in Experimental Nuclear Physics
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Responsible to:	Head of research group, or Prof Daniel Doherty
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Responsible for:	Not applicable
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Job Summary and Purpose:
To undertake research in accordance with the specified research project(s) under the supervision of the principal investigator.

Main Responsibilities/Activities
<p>To undertake a range of research activities within a specified research area, assuming responsibility for specific areas of projects and making use of new research techniques and methods, in consultation with the research award holder or supervisor. This may include fieldwork, interviews, laboratory experimentation, critical evaluation and interpretation, computer-based data analysis and evaluation or library research.</p> <p>Using initiative and creativity to identify areas for research develop new research methods and extend the research portfolio. Analysing and interpreting results of own research. Write up results and prepare papers for submission to appropriate journals and conferences, and other outputs as required and/or appropriate. Attend appropriate conferences for the purpose of disseminating research results of personal development. The post holder may also contribute to writing bids for research grants and will contribute to collaborative decision making with colleagues in areas of research.</p> <p>Continually to update knowledge and develop skills, and translate knowledge of advances in the area into research activity.</p> <p>To plan and manage own research activity in collaboration with others. To carry out administrative tasks associated with specified research funding, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting and financial control.</p> <p>To contribute to teaching in the Faculty by carrying out student supervision and/or demonstrating within the post holder's area of expertise and under the direct guidance of a member of departmental academic staff, as appropriate.</p> <p>The post holder may occasionally be required to supervise more junior research staff.</p>

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Person Specification

The post holder must have:

A doctoral degree in a relevant discipline (although individuals who have almost completed a doctoral degree may be appointed). Consideration may also be given to individuals who do not hold a doctoral degree but have required skills based on a number of years experience in specified / relevant fields

The post holder will have authority over some aspects of project work and must be capable of providing academic judgement, offering original and creative thoughts and be able to interpret and analyse results.

Relationships and Contacts

Direct responsibility to the principal investigator or academic supervisor. The post holder may be asked to serve on a relevant Faculty committee. There may be additional reporting and liaison responsibilities to external funding bodies or sponsors. The post holder may work on original research tasks with colleagues in other institutions.

Special Requirements

To be available to participate in fieldwork as required by the specified research project

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
- 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:

Research Fellow in Experimental Nuclear Physics

Background Information/Relationships

The Nuclear Physics and Applications Group spans theory, experiment and applications. The group leads research initiatives at some of the largest facilities around the world and benefits from links with key partners such as the National Physical Laboratory, AWE and the UKAEA.

This Research Fellow post is within the Nuclear Physics and Applications research group of the School of Mathematics and Physics. Specifically, the post is in the area of Experimental Nuclear Physics and will support the Group's initiatives in both nuclear structure and nuclear structure. The post holder will work closely with Prof Doherty, Prof Lotay and Dr Henderson and will be expected to collaborate with our colleagues at overseas facilities. The focus of this position is exploiting the techniques of gamma-ray spectroscopy with a variety of ancillary devices.

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.

Qualifications and Professional Memberships

**Essential/
Desirable**

A higher research degree (PhD) or equivalent experience in a relevant subject

Essential

Technical Competencies (Experience and Knowledge) This section contains the level of competency required to carry out the role (please refer to the competency framework for clarification where needed and the Job Families Booklet).

**Essential/
Desirable**

A proven track record of contributions in nuclear science

Essential

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Experience of various data analysis packages commonly used in nuclear physics research including Python, ROOT and the Geant4 simulation toolkit.	Desirable
Experience of performing and analysing experiments that utilize gamma-ray and charged-particle detection techniques.	Desirable
Experience of preparing manuscripts for publication.	Desirable
Special Requirements	Essential/ Desirable
Key Responsibilities <p>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.</p> <ol style="list-style-type: none"> 1. Analysing experimental data obtained with a variety of experimental techniques. 2. Participate in the setup and performing of experiments at international accelerator laboratories. 3. Participate in detector characterisation and testing both at Surrey and elsewhere in the UK. 4. Disseminate results at conferences and through publication in peer-reviewed journals. 5. Help with day-to-day supervision of undergraduate and postgraduate students in the laboratory <p>N.B. The above list is not exhaustive.</p>	