UNIVERSITY OF WARWICK

Job Description

Job title	Research Fellow
Department	Physics
Grade	FA6

Job purpose (a brief summary of the role)	Work within and support the activities of the Elementary Particle Physics Group in the LHCb experiment. Undertake research in order to support the work of the department and develop and enhance its reputation, both internally and externally. Work with local, national and international collaborators to successfully deliver high quality research outcomes.
Duties and responsibilities	**Research and Scholarship** • Take a prominent role in delivering the research goals of the Warwick LHCb group. • Conduct a research program, defined in agreement with the group, to search for physics beyond the Standard Model. • Fulfil Warwick group responsibilities on development of particle identification detectors for LHCb Upgrade 2, and in research and development on photon detectors in the context of the DRD4 collaboration. • Conduct individual and collaborative research projects. • Write up research work for publication. • Support and advise research students within the group. • Communicate complex information (orally and in writing) and material of a specialist or highly technical nature. • Continually update own knowledge and understanding in field or specialism. **Administration and Other Activities** • Attend departmental meetings and contribute (as necessary) to activities within the group and the department, for example in outreach. • Ensure compliance with health and safety in all aspects of work. • Work within budget constraints. The duties and responsibilities outlined are not intended to be an exhaustive list but rather to provide guidance on the main aspects of the post. The post-holder will be required to be flexible in his or her duties.

Person Specification *The Person Specification focuses on the essential and desirable knowledge, skills, experience and qualifications required to undertake the role effectively. This is measured by (a) Application Form, (b) Test/Exercise, (c) Interview, (d) Presentation.*		
Essential Criterion No.	Essential Criterion Description	Measured by
E1	Hold, or be about to attain, a PhD or equivalent in Experimental Particle Physics or another relevant scientific discipline.	A
E2	Proven ability in research and evidence of quality research output in experimental particle physics.	A,C & D
E3	Excellent planning and time management skills to ensure your research objectives are achieved on schedule.	A & C
E4	Ability to communicate research progress and outcomes as appropriate to a range of different audiences.	A,C & D
E5	Breadth and depth of knowledge of experimental particle physics, and of relevant research methods and techniques.	A,C & D
E6	Ability to initiate, plan, implement and deliver programmes of research work to defined deadlines.	A & C
E7	Ability to work effectively both independently and as part of a research team.	A & C

Desirable Criterion No.	Desirable Criterion Description	*Measured by*
D1	Experience of hardware, instrumentation and modern data analysis techniques for particle physics experiments.	A,C & D
D2	Experience of research and development with photon detectors and particle identification.	A,C & D
D3	Experience of scientific programming, e.g. with C++, Python, ROOT or similar.	A,C & D