UNIVERSITY OF NOTTINGHAM
RECRUITMENT ROLE PROFILE

Job Title:	Assistant Professor (Research and Teaching) in Experimental Quantum Physics / Technology
School/Department:	Physics and Astronomy
Job Family and Level:	Research and Teaching Extended level 5
Contract Status:	Permanent
Hours of Work:	Full-time, 36.25 hours per week (pro rata for part time appointments).
Location:	School of Physics and Astronomy, University Park
Reporting to:	Head of the School of Physics and Astronomy

Purpose of the Role:

The post holder will be expected to establish an independent, internationally-leading programme of research in experimental quantum physics/technology (cold atoms and ions, quantum optics, hybrid atomic/condensed matter systems, NV centres, optomechanics, superconducting devices, quantum sensors or related areas). He/she will also carry out teaching and administration, as directed by the Head of School.

	Main Responsibilities
1.	To take the lead on, plan, develop and conduct individual and/or collaborative research objectives, projects and proposals either as an individual or as part of a broader programme.
2.	To establish an international reputation and regularly disseminate and explain research findings through leading peer-reviewed publications (on a sustained basis), conferences and other appropriate media.
3.	To generate income by developing and winning support for research proposals and funding bids. Where appropriate undertake consultancy projects where there is a demonstrable benefit to the University and academic unit.
4.	To deliver teaching across a range of modules in physics.
5.	Be responsible for the design of modules and/or programmes of study in physics and for their quality. Where appropriate identify the need for developing the content or structure of existing modules and make proposals on how this should be achieved.
6.	To supervise and examine PhD students.
7.	To coach and support tutorial groups, developing students' knowledge and learning skills, and take responsibility for the pastoral care of physics students.
8.	Be responsible for and comply with The University of Nottingham Teaching Quality assurance standards and procedures. Ensure teaching quality assessment and assessment of progress and other information is maintained and supplied to the University as required

9.	To build relationships and collaborate actively with internal and external contacts, nationally and if appropriate internationally to complete research projects and to advance the discipline.
10.	Be responsible for administrative duties in areas such as admissions, timetabling, examinations, student attendance, and represent the school on various committees and working groups in the wider University and outside of the University and managing or monitoring assets and budgets allocated as part of the role.
11.	To contribute to student recruitment
12.	Be responsible for the safe conduct of work within work area and teaching responsibilities ensuring that the School's arrangements for compliance with the University Safety Policy are implemented.
13.	Be responsible for and supervise practical work, including undergraduate projects and placements.

Knowledge, Skills, Qualifications & Experience

	Essential	**Desirable**
Qualifications/ Education	PhD in Physics or related area. Undergraduate or postgraduate degree in the physical sciences.	Higher Education teaching qualification or equivalent.
Skills/Training	Skills needed for research in experimental physics. Excellent oral and written communication skills, including the ability to communicate with clarity on complex and conceptual ideas to non-specialists as well as to peers, using high level skills and a range of media. Sufficient breadth and depth of specialist knowledge in experimental quantum physics/technology to develop new research programmes and methodologies. Ability to devise, advise on and manage research programmes. Ability to manage resources and an understanding of management processes. Ability to build relationships and collaborate with others, internally and externally. Emerging skills in managing and motivating staff.	Skills in counselling, pastoral care and motivating students.

Experience	Physics-based research experience in experimental physics/technology. International reputation in experimental quantum physics/technology (for example cold atoms and ions, quantum optics, hybrid atomic/condensed matter systems, NV centres, optomechanics, superconducting devices, quantum sensors or related areas). A consistent track record of published research in peer reviewed journals. Evidence of independence in research.	Relevant national committee memberships, and/or involvement in national and international research events. Experience and demonstrated success in delivering teaching. Experience of counselling, pastoral care and motivating students.

UNIVERSITY OF NOTTINGHAM
RECRUITMENT ROLE PROFILE

Job Title:	Associate Professor in Experimental Quantum Physics / Technology
School/Department:	School of Physics and Astronomy
Job Family and Level:	Research and Teaching Level 6 (Research & Teaching)
Contract Status:	Permanent
Hours of Work:	Full-time, 36.25 hours per week (pro rata for part time appointments).
Location:	School of Physics and Astronomy, University Park
Reporting to:	Head of School

Purpose of the Role:

The role holder will be expected to make a significant leadership impact within the School of Physics & Astronomy and in the research of Experimental Quantum Physics / Technology, whilst materially contributing to the teaching of the School's undergraduate Physics degree programmes.

The role holder will participate and contribute to the organisation, management and strategic planning processes of the School and will also contribute to the University's strategic planning processes. They will act as principal investigator on major research projects in the field of Experimental Quantum Physics / Technology (encompassing cold atoms and ions, quantum optics, hybrid atomic/condensed matter systems, NV centres, optomechanics, superconducting devices, quantum sensors or related areas) and will identify opportunities for the development of new research projects.

The role holder will take responsibility for the quality of the design of undergraduate courses/programmes to maintain the high teaching standards and contribute generally to the development of teaching, teaching methods and assessments in the School.

The role holder will also contribute to the overall administration of the School.

	Main Responsibilities
1.	To provide academic and organisational leadership to those working within the area of Experimental Quantum Physics / Technology (cold atoms and ions, quantum optics, hybrid atomic/condensed matter systems, NV centres, optomechanics, superconducting devices, quantum sensors or related areas), by for example co-ordinating resources, the work of others to ensure the effective delivery of research projects and agree objectives and work plans with the team.
2.	To act as a personal mentor to peers and colleagues, where appropriate, and provide expert advice and coaching to colleagues and students internally and externally.
3.	To act as the principal investigator on major research projects within the area of Experimental Quantum Physics / Technology. Investigate and devise new research methods, generate new research approaches and contribute generally to the development of thought and practice in the field of Experimental Quantum Physics / Technology.

4.	To interpret findings, review and synthesise the outcomes of research projects in Experimental Quantum Physics / Technology and apply to research and teaching practice, where appropriate.
5.	To develop and sustain an ongoing national reputation as a research leader in Experimental Quantum Physics / Technology through original research work. Disseminate and explain research findings through leading peer-reviewed national and international publications, and present or exhibit at national/ international conferences and other similar events.
6.	To develop proposals for research projects which will make a significant impact by leading to an increase in knowledge and understanding and the discovery or development of new explanations, insights, concepts or processes.
7.	To lead major funding bids which develop and sustain research support for Experimental Quantum Physics / Technology and develop research initiatives to foster collaboration and generate income.
8.	To lead and develop internal (e.g. by chairing/participating in University Committees) and external relationships (e.g. external examiners/assessors and/or active researchers) to foster future collaboration.
9.	Act as convenor/lecturer for undergraduate core and optional modules: Design, update and review module content and documentation; delivery of contact teaching; monitoring of student performance; intellectual and emotional support to students; design and execution of assessment. This achieves high levels of student attainment (as assessed by validated marks) and satisfaction (as measured by student evaluation feedback).
10.	To coach and support tutorial groups, developing students' knowledge and learning skills, and take responsibility for the pastoral care of physics students.
11.	Be responsible for and comply with The University of Nottingham Teaching Quality assurance standards and procedures. Ensure teaching quality assessment and assessment of progress and other information is maintained and supplied to the University as required.
12.	Be responsible for the safe conduct of work within work area and teaching responsibilities ensuring that the School's arrangements for compliance with the University Safety Policy are implemented.
13.	Be responsible for administrative duties in areas such as admissions, timetabling, examinations, student attendance, and represent the school on various committees and working groups in the wider University and outside of the University and managing or monitoring assets and budgets allocated as part of the role.

Knowledge, Skills, Qualifications & Experience

	Essential	**Desirable**
Qualifications/ Education	PhD in Physics or equivalent in relevant subject area Or equivalent extensive professional/research experience.	Membership of a professional body, where appropriate. Higher education teaching qualification or equivalent.

Skills/Training	Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. Proven ability to provide effective leadership and management of groups and teaching activities. In depth knowledge of Experimental Quantum Physics / Technology to enable the development of new knowledge, innovation and understanding in the field. Proven ability with demonstrated success in obtaining sources of funding, providing effective leadership, planning, and building, resourcing a team and delivering research results. Extensive track record of published research, development and delivery of teaching units, successful consultancy activities and/or delivery of specialist services to external customers/clients. High analytical ability to facilitate conceptual thinking, innovation and creativity.	
Experience	Extensive research and teaching experience with an established national and growing international reputation in the field of Experimental Quantum Physics / Technology (cold atoms and ions, quantum optics, hybrid atomic/condensed matter systems, NV centres, optomechanics, superconducting devices, quantum sensors or related areas). Extensive experience in developing and devising new research programmes, models, techniques and methods. Experience and demonstrated success in delivering teaching.	An understanding of University management systems and the wider higher education environment. Previous experience of the supervision and pastoral care of students at all levels.

UNIVERSITY OF NOTTINGHAM
RECRUITMENT ROLE PROFILE

Job Title: Professor in Experimental Quantum Physics / Technology

School/Department: School of Physics & Astronomy, Faculty of Science

Job Family and Level: Professorial

Contract Status: This post will be offered on a permanent contract

Hours of Work: Full-time

Location: School of Physics & Astronomy, University Park

Reporting to: Head of School

The Purpose of the New Role:

The post holder will be expected to establish an independent, internationally-leading programme of research in experimental quantum physics/technology (cold atoms and ions, quantum optics, hybrid atomic/condensed matter systems, NV centres, optomechanics, superconducting devices, quantum sensors or related areas).

The role entails the design, delivery, supervision and assessment of undergraduate and postgraduate teaching; the soliciting, execution and dissemination of research, nationally and internationally; the provision of advice, support and encouragement to colleagues and students and a contribution to the strategic management of the School, and, as required, the University.

	Main Responsibilities
1.	Lead responsibility for developing the research strategy and capacity in Experimental Quantum Physics (encompassing cold atoms and ions, quantum optics, hybrid atomic/condensed matter systems, NV centres, optomechanics, superconducting devices, quantum sensors or related areas).
2	To continue to develop an international reputation for world-leading research, including the regular dissemination of research findings through leading peer-reviewed publications (on a sustained basis), conferences and other appropriate media.
3.	To plan, undertake, solicit funding for, and disseminate original substantive and methodological research that contributes to the field and allied disciplines. This entails supervision of research staff, collaboration with colleagues within the School and wider University and elsewhere externally, preparation of academic articles and books, presentations and attendance at conferences and seminars and, as appropriate their organisation.
4.	To build relationships and collaborate actively with internal and external contacts, nationally and if appropriate internationally to complete research projects and to advance the discipline.
5.	Support, supervise and examine the research work and professional development of doctoral students, providing pastoral care, support and specialist training where appropriate.

6.	Act as convenor/lecturer for undergraduate core and optional modules: Design, update and review module content and documentation; delivery of contact teaching; monitoring of student performance; intellectual and emotional support to students; design and execution of assessment. This achieves high levels of student attainment (as assessed by validated marks) and satisfaction (as measured by student evaluation feedback).
7.	To coach and support tutorial groups, developing students' knowledge and learning skills, and take responsibility for the pastoral care of physics students.
8.	Be responsible for and comply with The University of Nottingham Teaching Quality assurance standards and procedures. Ensure teaching quality assessment and assessment of progress and other information is maintained and supplied to the University as required.
9.	Be responsible for the safe conduct of work within work area and teaching responsibilities ensuring that the School's arrangements for compliance with the University Safety Policy are implemented.
10	Be responsible for administrative duties in areas such as admissions, timetabling, examinations, student attendance, and represent the school on various committees and working groups in the wider University and outside of the University
11	Member/chair of policy committees of academic/professional bodies as required, editorial boards, refereeing of publications, appointments, promotions, and degree structures.

Knowledge, Skills, Qualifications & Experience:

	Essential	**Desirable**
Qualifications/ Education	• PhD in Physics, or equivalent supported by extensive and high level research and teaching experience in relevant area.	• Membership of a professional body where appropriate
Skills/Training	• High level analytical capability to facilitate conceptual thinking, innovation and creativity. • In depth knowledge of Experimental Quantum Physics / Technology to enable the development of new knowledge, innovation and understanding in the field. • Proven skills in coaching and developing others in best practice techniques. • Proven ability to lead, motivate, develop and manage the performance of a group.	• Skills in pastoral care and motivating students at all levels. • An understanding of University management systems and the wider higher education environment.
Experience	• Established and widely recognised excellence and reputation in Experimental Quantum Physics / Technology amongst peers nationally and internationally (e.g. in cold atoms and ions, quantum optics, hybrid atomic/condensed matter	• Significant record of supervision of postgraduate students on industrial or knowledge transfer projects. • Previous leadership experience. • Previous success in transferring research results

	systems, NV centres, optomechanics, superconducting devices, quantum sensors or related areas). • Extensive experience in leading the design of research techniques and methods. • Proven ability to plan and lead the delivery of research and teaching programmes, and to develop sources of funding. • Extensive experience and capability to act as a role model in the areas of research, and teaching, as appropriate. • Previous experience and success in raising capital in support of new projects, management of investment funds, grants and contracts.	to commercial professional or other practical use

The University of Nottingham strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women's careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.