



JOB DESCRIPTION

Job Title:	Post Doctorate Research Assistant in Condensed Matter Theory
Department / Unit:	School of Engineering, Physical and Mathematical Sciences
Job type	Research
Grade:	7
Accountable to:	Dr Andrew Ho
Accountable for:	N/A
Purpose of the Post	
<p>To carry research activity in the field of the theory of strongly correlated quantum many-body systems, in collaboration with the research team of Dr Andrew Ho (RHUL), and Dr Derek Lee (Imperial College London).</p>	
Key Tasks	
<p>To actively participate in the Leverhulme Trust funded project "Intertwined superfluid and density-wave orders in quantum many-body systems": [ref: RPG-2019-204]. This includes the theoretical study of model quantum many-body systems, the analysis and interpretation of research data of current experimental systems of interest, and the application of theoretical models to these systems.</p> <p>Using creativity to attempt to design new experimental setups and/or probes of properties of these correlated many-body systems.</p> <p>To interact, collaborate closely and regularly with the core research team of Dr Andrew Ho, Dr Derek Lee and the PhD student associated with this project, and interact with experimentalists at RHUL and beyond. This includes approximately weekly visits to Imperial College London.</p> <p>To interact, collaborate closely and regularly with the core research team of Dr. Andrew Ho, Dr. Derek Lee and the PhD student associated with this project, and interact with experimentalists at RHUL and beyond. This includes approximately weekly visits to Imperial College London. Record, analyse and write up analytical and/or computational results, maintaining a permanent record of the methodologies and the calculation.</p> <p>To prepare and present findings of research activity to colleagues and at scientific meetings, and writing up papers for publication in scientific journals</p>	

To contribute to the preparation of grant applications, research presentations and publications as requested.

Using initiative and creativity to identify areas for research, developing new research methods and extending the research portfolio

To undergo continued personal professional development

To undertake some teaching of undergraduate and graduate students.

Other Duties

The duties listed are not exhaustive and may be varied from time to time as dictated by the changing needs of the College. The post holder will be expected to undertake other duties as appropriate and as requested by his/her manager.

The post holder will actively follow Royal Holloway policies including Equal Opportunities policies. The post holder will also observe Fire and Health and Safety Regulations.

The post holder may be required to work at any of the locations at which the business of Royal Holloway is conducted.

Internal and external relationships

The following list is not exhaustive but the post holder will be required to liaise with:

- Members of the research groups in RHUL and Imperial
- Other staff members of the department/school
- Colleagues in other universities/other research facilities
- Visitors, collaborators and suppliers to the department/school