

Marie Sklodowska - Curie Early Stage Researcher - Mosaicq

University of Birmingham - College Of Engineering And Physical Sciences School Of Physics And Astronomy

Salary: Fixed salary of £38,137 per annum for the duration of the contract, additional allowances may be available depending on circumstances.

Hours: Full Time

Contract Type: Fixed-Term/Contract

Duration: Fixed-term for up to 36 months

Role Purpose

The unprecedented control over cold atoms resulted in extremely precise measurement of time and frequencies. In our lab, we work on enabling concepts through to asking very fundamental questions at the cutting edge of science. We have Marie-Sklodowska Curie Early Stage Researcher (ESR) position within the EU-ITN-MoSaiQC (<https://www.mosaicq.eu>) aimed to train a cohort of scientists at the frontiers of physics. This ESR will work on cutting edge projects developing novel concepts relevant to metrology and fundamental science. The successful candidate will have access to our state-of-the art labs and will also benefit from the European Collaborations as well as from our direct link to the UK National Quantum Technology Hub in Sensors and Metrology.

The ESR will register for a PhD, undergo training in research and innovation and complete independent research under the supervision of Dr Yeshpal Singh. This ITN trains 14 ESRs in 10 organizations from industry and academia. This is a fully funded position, and we are looking for highly motivated people ready to push the boundaries of the field. Though we are very open and flexible, experience in cold atoms is certainly an advantage.

You will participate in network meetings across Europe, where you will learn about quantum technology from experts in the field and train essential skills for your future career, such as academic writing and outreach. The role is based at University of Birmingham and will include a secondment at our research partner's lab (e.g. the University of Amsterdam, TOPTICA, UIBK, Teledyne and BT). You will participate in outreach events, including national and international showcase events and events for general public.

Applicants should complete an application form, provide an up-to-date CV and letter of motivation, together with the names of two scientific referees. The selection procedure includes an interview and a reference check. During an online interview you will be expected to give a presentation of your master thesis and answer questions around the relevant subject area (e.g. cold atoms).

There are no restrictions on applicants' nationality, however:

- Applicants must, at the time of recruitment, have not yet been awarded a doctorate degree and be in the first 4 years (full-time equivalent) of their research careers. This is measured from the date that you obtained the degree that would entitle you to embark on a PhD;
- At the time of recruitment, applicants must not have resided or carried out their main activity (work, studies, etc.) in the UK for more than 12 months in the 3 years immediately prior to their recruitment under the MoSaiQC project. Compulsory national service and/or short stays such as holidays are not taken into account

Key Main Duties

- Develop research objectives and proposals for own or joint research, with assistance of a mentor if required
- Contribute to writing bids for research funding
- Analyse and interpret data
- Apply knowledge in a way which develops new intellectual understanding
- Disseminate research findings for publication, research seminars etc
- Contribute to developing new models, techniques and methods

Person Specification

- First degree in physics and normally, a higher degree relevant to research area or equivalent qualifications
- Experience in cold atoms and optical lattice clocks
- High level analytical capability
- Ability to communicate complex information clearly
- Fluency in relevant models, techniques or methods and ability to contribute to developing new ones
- Ability to assess resource requirements and use resources effectively

Informal enquiries to Dr Yeshpal Singh, y.singh.1@bham.ac.uk

We encourage our applicants to read The European Charter & Code for Researchers: <https://euraxess.ec.europa.eu/euraxess/charter-code-researchers>.