

Job profile

The job requirements are detailed below. Where applicable the skills, qualifications and memberships required for this job have also been included.

Job details

Job title	Postdoctoral Research Fellow
Job reference	P66180
Date posted	05/02/2019
Application closing date	06/03/2019
Location	Exeter
Salary	The starting salary will be from £35,211 up to £43,267 on Grade F, depending on qualifications and experience.
Package	Generous holiday allowances, flexible working, pension scheme and relocation package (if applicable).
Job category/type	Research
Job description	College of Engineering, Mathematics and Physical Sciences

This EPSRC and DSTL funded post is available from 1 April 2019 and for the duration of 3 years to work on imaging and tracking of objects/people through scattering media, exploiting speckle correlations to extract the information hidden in the scattered light.

The University of Exeter is a member of the prestigious Russell Group of research-intensive universities. We combine world-class teaching with world-class research, and have achieved a Gold rating in the Teaching Excellence Framework Award 2017. The University of Exeter has over 22,000 students and 4600 staff from 180 different countries and has been rated the WhatUni2017 International Student Choice. Our research focuses on some of the most fundamental issues facing humankind today, with 98% of our research rated as being of international quality in the 2014 Research Excellence Framework. We encourage proactive engagement with industry, business and community partners to enhance the impact of research and education and improve the employability of our students.

The post

The project will have a more theoretical part, where the technique and the numerical tools will be developed, and an experimental part where the technique will be applied to both micro and macroscopic objects, starting with simple proof-of-concepts in the lab and arriving to real world applications. The project will build on previous work done in the group about speckle correlations, and its final goal is to develop a technology able to image people without a direct line of sight ("around the corner") and track the movement of objects behind a scattering obstacle (e.g. a thin wall). You will be knowledgeable about light scattering, imaging, and have the ability to learn both new Physics and new experimental techniques.

The post will include: the design and alignment of optical experiments, the implementation of numerical calculations (both to simulate the experiments and to reconstruct the desired images from the data), and the presentation of research progresses both internally and externally (e.g. at conferences).

About you

You will be able to develop research objectives, projects and proposals; identify sources of research funding and contribute to the process of securing funds and make presentations at conferences and other events.

You will:

- Possess a relevant PhD or equivalent qualification/experience in a related field of study
- Be a nationally recognised authority in optics, photonics, or a closely related area
- Possess sufficient specialist knowledge in the discipline to develop research programmes and methodologies
- Be able to work collaboratively, supervise the work of others and act as team leader as required
- Be able to design and align optics experiments
- A good understanding of optics (including Fourier optics) is required, and experience with light scattering phenomena is desirable

Candidates with no experience in experimental optics/photonics will not be considered for this position.

To view the Job Description and Person Specification document please [click here](#).

What we can offer you

- Freedom (and the support) to pursue your intellectual interests and to work creatively across disciplines to produce internationally exciting research
- Support teams that understand the University wide research and teaching goals and partner with our academics accordingly
- An Innovation, Impact and Business directorate that works closely with our academics providing specialist support for external engagement and development
- Our Exeter Academic initiative supporting high performing academics to achieve their potential and develop their career
- A multitude of staff benefits including sector leading benefits around [maternity, adoption and shared parental leave](#) (up to 26 weeks full pay), Paternity leave (up to 6 weeks full pay), and a new Fertility Treatment Policy

For further information please contact Dr Jacopo Bertolotti j.bertolotti@exeter.ac.uk or telephone (01392) 725695.

The University of Exeter is an equal opportunity employer. We are officially recognised as a Disability Confident employer and an Athena Swan accredited institution. Whilst all applicants will be judged on merit alone, we particularly welcome applications from groups currently underrepresented in the workforce.