



<b>Job title</b>	Research Associate/Fellow (Quantum Technology)	<b>Job family and level</b>	RT4
<b>School/ Department</b>	Sir Peter Mansfield Imaging Centre, School of Physics and Astronomy	<b>Location</b>	University Park Campus

## Purpose of role

To carry out research supporting the system development of Next Generation Magnetoencephalography (MEG) systems, as well as contributing to development of knowledge and protocols supporting the use of Next Generation MEG in research and clinical environments.

The researcher will be an integral part of a large and diverse team of researchers from the Sir Peter Mansfield Imaging Centre (SPMIC) within the School of Physics and Astronomy.

The main responsibility of this post will be to contribute across the spectrum of SPMIC Next Generation MEG project activities. The researcher is moreover expected to actively contribute to the research activities of the SPMIC and wider School of Physics and Astronomy.

	<b>Main responsibilities</b> (Primary accountabilities and responsibilities expected to fulfil the role)	<b>% time per year</b>
1	To plan and conduct primary research towards the goals of the research project.	80 %
2	To write up research work for publication and contribute to the dissemination of research at scientific conferences. To assist in the dissemination of research outputs to the general public.	10 %
3	To identify opportunities and assist in writing bids for research grant applications.	1 %
4	To assist where appropriate with supervising undergraduate and postgraduate students projects as appropriate.	2 %
5	To build relationships with both internal and external contacts in order to exchange information, to form relationships for future collaborations and identify potential sources of funds and/or opportunities for collaboration.	2 %

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6	To develop their own research ideas and collaborate with academic colleagues on areas of shared interest for example, collaborative or joint research projects.	5 %
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## Person specification

	<b>Essential</b>	<b>Desirable</b>
<b>Skills</b>	<p>Excellent oral and written communication skills, including the ability to communicate with clarity on complex information.</p> <p>Strong capability to analyse and illuminate data, interpret reports, evaluate and criticise texts and generate new insights.</p> <p>Ability to apply creatively relevant research approaches, models, techniques and methods.</p> <p>Ability to assess and organise resource requirements and deploy effectively.</p> <p>Ability to build relationships and collaborate with others, both internally and externally.</p>	<p>Good computer programming skills Specifically, Experience in the use of Matlab and/or python.</p> <p>Strong interest in functional brain imaging via MEG and associated methods (EEG, MRI)</p> <p>Previous training in development of MEG analysis pipelines, and novel experimental design.</p>
<b>Knowledge and experience</b>	<p>Significant experience in the field of human imaging, in particular development of hardware.</p>	<p>Experience in the use of Matlab and/or python.</p> <p>Experience in MEG array design – preferably in the field of wearable MEG.</p> <p>Experience in the use of MEG for clinical applications.</p> <p>Experience in undertaking complex simulations, in particular using Matlab to simulate MEG data.</p> <p>Publication track record in neuroimaging</p>
<b>Qualifications, certification and training (relevant to role)</b>	<p>Ph.D. (or Ph.D. nearing completion) in neuroimaging or an associated area and strong interest/experience in developing imaging methods and hardware.</p> <p>Undergraduate degree in Physics, Engineering, Mathematics or appropriately related discipline.</p>	<p>Ph.D in the development of OPM-MEG and/or applying MEG to clinical populations</p>



The University of Nottingham is focused on embedding equality, diversity and inclusion in all that we do. As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those with protected characteristics under the Equality Act 2010.

## Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

- Valuing people** Is always equitable and fair and works with integrity. Proactively looks for ways to develop the team and is comfortable providing clarity by explaining the rationale behind decisions.
- Taking ownership** Is highly self-aware, looking for ways to improve, both taking on board and offering constructive feedback. Inspires others to take accountability for their own areas.
- Forward thinking** Driven to question the status quo and explore new ideas, supporting the team to "lead the way" in terms of know-how and learning.
- Professional pride** Sets the bar high with quality systems and control measures in place. Demands high standards of others identifying and addressing any gaps to enhance the overall performance.
- Always inclusive** Ensures accessibility to the wider community, actively encouraging inclusion and seeking to involve others. Ensures others always consider the wider context when sharing information making full use of networks and connections.

## Key relationships with others



