Senior Research Fellow / Research Fellow - Sir Peter Mansfield Imaging Centre (Multiple positions, FTC)

Area
Physics & Astronomy

Location
University Park

Salary
RT 4a+: £31,637 to £46,735 per annum (pro-rata if applicable) depending on skills and experience (minimum £35,116 with relevant PhD). Salary progression beyond this scale is subject to performance. RT 5: £45,413 to £57,422 per annum (pro-rata)

Closing Date
Friday 08 August 2025

Reference
SCI210225

We are pleased to advertise **three** new posts providing an exciting opportunity to join the world-leading biomedical imaging research group at the Sir Peter Mansfield Imaging Centre (SPMIC), University of Nottingham (UoN). The SPMIC has a long-standing track record of excellence in the development and application of Magnetic Resonance Imaging (MRI) and Spectroscopy (MRS), with outputs including research grants and partnerships, highly cited publications, intellectual property, commercialisation and clinical translation.

These appointments within the School of Physics and Astronomy will support the development of the National Facility for Ultra-High Field (11.7T) human MRI/S at the University of Nottingham. We are looking to recruit MR physicists and biomedical engineers, or equivalent, enthusiastic to exploit the unique opportunities provided by the 11.7T scanner in functional and anatomical MRI, and MRS of 1H and X-nuclei. Researchers with prior technical experience of 7T MRI/MRS, and/or expertise in pulse programming or use of AI in MRI are particularly encouraged to apply.

The SPMIC currently operates a 7T Philips scanner, 3T Philips and GE research scanners, and an 0.5T open scanner, alongside facilities for magnetoencephalography and hyperpolarised MR. The 7T scanner has recently undergone a major hardware and software upgrade and now forms a testbed for the development of the 11.7T system. The 11.7T scanner is being produced in collaboration with Philips, Tesla Engineering and the University of Glasgow, with the magnet scheduled for delivery in October 2026 and system integration continuing over the following 9 months. Researchers from multiple UK universities have been involved in the development of the 11.7T National Facility and the appointed

Research Fellows in UHF MRI/S will work with researchers from across the UK community to develop and exploit the 11.7T scanner's capabilities.

As part of our commitment to improving equality, diversity, and inclusion within the school, shortlisted candidates will be given the opportunity to talk to a member of staff representing women, racially minoritized people, LGBTQIA+, or disabilities communities. This will be separate from the assessment process and will play no role in the appointment decision.

Hours of work are full-time (36.25 hours); however, applications are also welcome from candidates wishing to work part-time (minimum 21.75 hours per week). Please specify in your application if you wish to work part time and the number of preferred hours. Job share arrangements may be considered. The fixed term contract end date is 30/09/2027 with likely extension.

Salary: Research Fellow: £31,637 to £46,735 per annum (pro-rata if applicable) depending on skills and experience (minimum £35,116 with relevant PhD). Senior Research Fellow: £45,413 to £57,422 per annum (pro-rata).

If you are interested about this position, please progress and click 'apply online' button. You should attach your CV, along with a detailed cover letter stating why the position is of interest. Please specify on your cover letter if you are willing to apply for Research Fellow, Senior Research Fellow or both.

These posts are advertised at both Level 4 Research Fellow and Level 5 Senior Research Fellow based on the University's Research & Teaching (R&T) Job Family and salary spinal points, to be able to recruit applicants with a higher level of experience that will support the successful implementation of the project. Please specify in your application which level of the position you are applying to: https://www.nottingham.ac.uk/hr/guidesandsupport/jobfamilies/jobfamilies/index.aspx

Informal enquiries may be addressed to Professor Richard Bowtell (richard.bowtell@nottingham.ac.uk). Please note that formal applications sent directly to this email address will not be accepted.

Further details

Our university is a supportive, inclusive, caring and positive community. We welcome those of different cultures, ethnicities and beliefs – indeed this very diversity is vital to our success, it is fundamental to our values and enriches life on campus. Visit our Equality, Diversity and Inclusion website.

We are proud to be a Disability Confident Employer (Level 2) employer. Increasing the diversity of our community is extremely important to us and we are committed to the aims of Disability Confident Scheme.

We are the first university to have achieved Athena Swan Gold Award.

To help you succeed, we published Candidate Guidance to provide support on the application and interview process.

Discover our benefits, visit Your Benefits website.

We welcome applications from UK, Europe and worldwide and aim to make your move to the UK as smooth as possible. Visit the Moving to Nottingham page for details.

Your application will be considered on an equal basis, subject to the relevant permission to work in the UK as set out by UK Visas & Immigration.

University of Nottingham
UK | CHINA | MALAYSIA

Role profile

Job title	Research Fellow	Job family and level	Research and Teaching Level 4
School/ Department	Sir Peter Mansfield Imaging Centre, School of Physics and Astronomy	Location	University Park Campus

Purpose of role

You will carry out research to support the development of the National Facility for Ultra-High Field (11.7T) human MRI/MRS at the University of Nottingham. The roles are suitable for MR physicists and biomedical engineers, or equivalent, who can exploit the opportunities provided by the 11.7T scanner in functional or anatomical MRI, or MRS of ^{1}H and X-nuclei. Researchers with prior technical experience of 7T MRI/MRS, and/or expertise in pulse programming are particularly encouraged to apply.

You will join a diverse team of researchers at the Sir Peter Mansfield Imaging Centre (SPMIC), School of Physics and Astronomy. Your main responsibility will be to progress optimal acquisition and analysis pipelines for 11.7T MRI/MRS, which will enable the scanner's capabilities to be exploited in neuroscience and clinical applications. While the 11.7T scanner is in development, initial work will be carried out on our newly upgraded 7T scanner (which is based on the same Philips scanner back-end to that planned for the 11.7T scanner). You will work closely with, and support, collaborators across the UK and elsewhere to develop the 11.7T community.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	**% time per year**
1	To conduct primary research towards the goals of the research project.	65%
2	To build relationships with both internal and external members of the project collaboration to exchange information, enable primary research goals to be reached and form relationships for future collaborations	20%
3	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%
4	To assist where appropriate with supervising undergraduate and postgraduate student projects as appropriate.	5%

Person specification

	Essential	Desirable
Skills	Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. MRI sequence optimisation skills Ability to analyse MRI or MRS data Computer programming skills. Specifically, experience in the use of MATLAB and/or Python. Ability to interpret reports, evaluate and criticize relevant literature Ability to assess and organise resource requirements and deploy them effectively. Ability to build relationships and collaborate with others, both internally and externally within a multidisciplinary context	Pulse programming skills on an MR scanner Experience of developing analysis pipelines for functional MRI, anatomical MRI or MRS.
Knowledge and experience	Experience in the field of MRI or MRS Good knowledge of the fundamental physics of MRI Experience of analysing MRI datasets Experience with data acquisition at 7T and/or 3T Good publication track record Experience of giving presentations at scientific conferences.	Doctoral/post-doctoral experience in ultra-high field MRI or MRS studies. Experience of operating a Philips MR scanner Experience of MRI/S research on human subjects, including knowledge of governance and ethical requirements
Qualifications, certification and training (relevant to role)	Undergraduate degree (BSc/MSci) in Physics, Engineering, Mathematics or appropriately related discipline, for example neuroscience or psychology Ph.D. in MRI/S or an associated area	Good Clinical Practice training.

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.

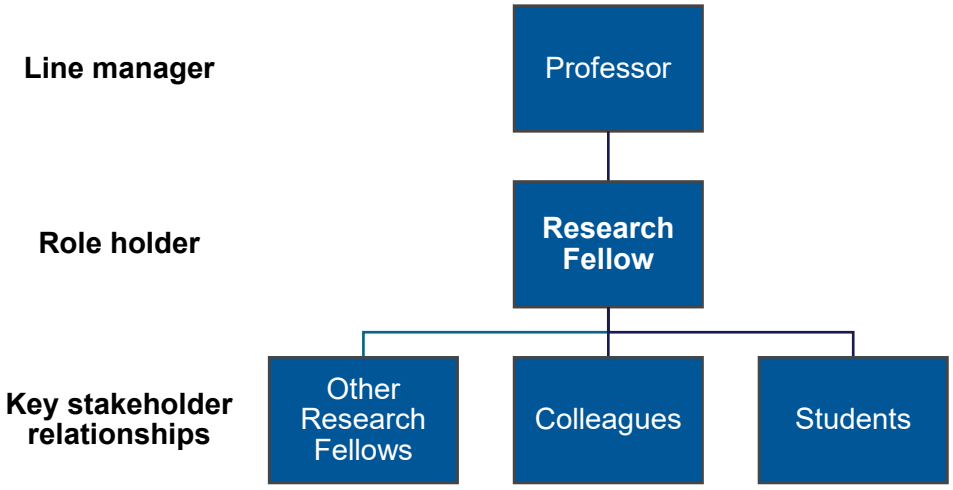
The University is a signatory of the Declaration on Research Assessment (DORA). As such we commit to focus on the scientific content of publications (where requested or provided as part of the recruitment and selection process) as a basis for review of quality, and consideration of value and impact of research conducted, rather than any proxy measures such as Journal Impact Factor.

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 friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
Taking ownership	Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
Forward thinking	Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
Professional pride	Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
Always inclusive	Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others



Job title	Senior Research Fellow	Job family and level	Research and Teaching Level 5
School/ Department	Sir Peter Mansfield Imaging Centre, School of Physics and Astronomy	Location	University Park Campus

Purpose of role

You will carry out research to take forward the development of the National Facility for Ultra-High Field (11.7T) human MRI/MRS at the University of Nottingham. The role is suitable for MR physicists and biomedical engineers, or equivalent, with substantial experience of high-field MRI/MRS, who can exploit the opportunities provided by the 11.7T scanner in functional or anatomical MRI, or MRS of ^{1}H and X-nuclei. Researchers with expertise in pulse programming are particularly encouraged to apply.

You will join a diverse team of researchers at the Sir Peter Mansfield Imaging Centre (SPMIC), School of Physics and Astronomy. Your main responsibility will be to develop optimal acquisition and analysis pipelines for 11.7T MRI/MRS, which will enable the scanner's capabilities to be exploited in neuroscience and clinical applications. While the 11.7T scanner is in development, initial work will be carried out on our newly upgraded 7T scanner (which is based on the same Philips scanner back-end to that planned for the 11.7T scanner). You will work closely with, and support, collaborators across the UK and elsewhere to develop the 11.7T community, and promote the scanner's capabilities to potential users.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	**% time per year**
1	To conduct primary research towards the goals of the research project.	45%
2	To build relationships with both internal and external members of the project collaboration to exchange information, enable primary research goals to be reached and form relationships for future collaborations	25%
3	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%
4	To generate income by developing and winning support for innovative research proposals and funding bids.	10%
5	To assist where appropriate with supervising undergraduate and postgraduate student projects as appropriate.	10%

Person specification

	Essential	**Desirable**
Skills	Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. MRI sequence optimisation skills Ability to analyse MRI or MRS data Computer programming skills. Specifically, experience in the use of MATLAB and/or Python. Ability to interpret reports, evaluate and criticize relevant literature Ability to assess and organise resource requirements and deploy them effectively. Ability to build relationships and collaborate with others, both internally and externally within a multidisciplinary context. Ability to write applications for grant funding.	Pulse programming skills on an MR scanner Experience of developing analysis pipelines for functional MRI, anatomical MRI or MRS.
Knowledge and experience	Significant experience in the field of MRI or MRS Good knowledge of the fundamental physics of MRI Experience of analysing MRI datasets Experience with data acquisition at 7T and/or 3T Good publication track record Experience of giving presentations at scientific conferences, including invited presentations. Experience of obtaining grant funding. Doctoral/post-doctoral experience in ultra-high field MRI or MRS studies.	Experience of operating a Philips MR scanner Experience of MRI/S research on human subjects, including knowledge of governance and ethical requirements

Qualifications, certification and training (relevant to role)	Undergraduate degree (BSc/MSci) in Physics, Engineering, Mathematics or appropriately related discipline, for example neuroscience or psychology Ph.D. in MRI/S or an associated area	Good Clinical Practice training.

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.

The University is a signatory of the Declaration on Research Assessment (DORA). As such we commit to focus on the scientific content of publications (where requested or provided as part of the recruitment and selection process) as a basis for review of quality, and consideration of value and impact of research conducted, rather than any proxy measures such as Journal Impact Factor.

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 friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
Taking ownership	Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
Forward thinking	Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
Professional pride	Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
Always inclusive	Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others