CANDIDATE BRIEF
Research Fellow in Radio Astronomy, Faculty of Engineering & Physical Sciences

Salary: Grade 7 (£33,797 – £40,322 p.a.)
Reference: EPSPA1014
Closing date: 24 June 2020

Fixed-term for 6 months
We will consider job share / flexible working arrangements
Research Fellow in Radio Astronomy
School of Physics and Astronomy

Do you want to gain valuable research experience? Do you have a strong track record in radio astronomy? Do you want to further your career as part of a leading research group?

We are looking for someone to join the Astrophysics Group to work on our world leading radio surveys of the Galactic plane. The CORNISH surveys are the highest resolution, wide-area radio continuum surveys of the Galactic plane to date and provide matching data to the latest optical, infrared and millimetre surveys. As well as the CORNISH-North survey carried out with the VLA we have completed the CORNISH-South survey with ATCA at 2.5 arcsecond resolution and a sensitivity of 0.1 mJy. The 5 GHz survey data have been reduced and you will develop the website to make these results accessible to the community. A simultaneous survey was also taken at 9 GHz and you will reduce and analyse these data. These surveys of the southern plane are important in the context of the new deep 1.5 GHz survey by the MeerKAT array. These datasets enable new insights into the formation of massive stars and stellar evolution. You will develop and exploit these survey data and publish the findings.

You will have a PhD (or close to completion) in radio astronomy or a closely allied discipline, with a strong background in astrophysics and an ability to develop websites that interface to databases.

What does the role entail?

As a Research Fellow, your main duties will include:

- Analysing and publishing the key results from the CORNISH-South 5 GHz survey;
- Developing the CORNISH-South website to make the radio, mm and IR data on the sources available to the astronomical community;
- Carrying out the pipeline reduction of the CORNISH-South 9 GHz survey;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the
direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Research Fellow you will have:
- A PhD (or close to completion) in radio astronomy or a closely allied discipline;
- A strong background in astrophysics;
- An ability to develop websites that interface to databases;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A proven track record of peer-reviewed publications in high impact factor journals;
- Excellent written and verbal communication skills including presentation skills;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.

You may also have:
- Experience of pursuing external funding to support research;
- Expertise in either H II regions or planetary nebulae.
How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised [closing date](#).

Contact information

To explore the post further or for any queries you may have, please contact:

Prof Melvin Hoare, Professor of Astrophysics  
Tel: +44 (0)113 343 3864  
Email: m.g.hoare@leeds.ac.uk

Additional information

Faculty and School Information

Further information is available on the research and teaching activities of the School of [Physics and Astronomy](#).

A diverse workforce

The Schools in the Faculty of Engineering & Physical Sciences are proud to have been awarded the Athena SWAN [Bronze or Silver](#) Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our [equality and inclusion webpage](#) provides more information.

Working at Leeds

Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our [Working at Leeds](#) information page.

Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at disclosure@leeds.ac.uk.
Criminal record information

This post requires «an enhanced» «an enhanced and barred list» «a standard» criminal record check from the Disclosure and Barring Service (DBS), and any equivalent overseas authorities where relevant. The successful candidate will be required to give consent for the University to check their criminal record status. All applicants are required to make a self-declaration where applicable.»

« For posts falling under Rehabilitation of Offenders Act 1974» «Rehabilitation of Offenders Act 1974
«A criminal record check is not required for this position. However, all applicants will be required to declare if they have any ‘unspent’ criminal offences, including those pending.» «OR» «This post requires a basic criminal record check from the Disclosure and Barring Service (DBS), and any equivalent overseas authorities where relevant. The successful candidate will be required to give consent for the University to check their criminal record status and all applicants must declare if they have any ‘unspent’ criminal offences, including those pending.»

Any offer of appointment will be «Delete if no check required: subject to the University being satisfied with the outcome of these checks,» in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.