



UNIVERSITY OF LEEDS

## CANDIDATE BRIEF

Research Fellow in Star Formation,  
Faculty of Engineering and Physical Sciences



**Salary: Grade 7 (£34,304 – £40,927 p.a.)** Due to funding restrictions, an appointment will not be made higher than £36,382 p.a.

**Reference: EPSPA1039**

**Closing date: Monday 15 November 2021**

**Fixed-term for until 31 March 2024**

**We will consider job share and flexible working arrangements**

## **Research Fellow in Star Formation, School of Physics and Astronomy.**

**Are you an ambitious researcher looking for your next challenge? Do you have an established background in Star Formation? Do you want to further your career in one of the UK's leading research-intensive Universities?**

You will work on an STFC-funded project with Prof Oudmaijer, Dr Lumsden and Prof Hoare to investigate high spatial and spectral resolution near- and mid-infrared studies of massive young stellar objects (MYSOs).

You will carry out a programme to study the sub-au to 100 au scale structures due to binarity, accretion and outflows. The observations include high resolution spectroscopy and IR interferometry of accretion disks, jets, and winds. The programme will exploit the large sample of MYSOs discovered by the Red MSX Source survey led by the Leeds group to study the massive star formation processes as a function of mass and evolutionary stage.

With a PhD (or will have submitted your thesis prior to taking up the appointment) in Astrophysics or a closely allied discipline, you will have experience in infrared/optical observational astronomy and a developing track record of peer reviewed publications in international journals.

### **What does the role entail?**

As a Research Fellow, your main duties will include:

- Designing, planning and conducting a programme of investigation in near- and mid-infrared studies of massive young stellar objects, in collaboration with Prof. René Oudmaijer, Dr Stuart Lumsden and Prof. Melvin Hoare;
- Working closely with the Leeds group's ongoing radio and mm interferometric studies of the same sample, using radiative transfer modelling to interpret the data;
- Generating and pursuing independent and original research methods that can be applied to the infrared study of massive young stars at the highest spatial and spectral resolutions;
- Evaluating methods and techniques used and results obtained by other researchers and to relating such evaluations to your own research;





- Making a significant contribution to the dissemination of research results by publication in leading peer-reviewed journals, and by presentation at national and international meetings;
- Contributing to the preparation of observing proposals;
- Working both independently and also as part of a larger team of researchers, both internally and externally to develop new research links and collaborations and engage in knowledge transfer activities where appropriate;
- 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 have submitted your thesis before taking up the role) in Astrophysics or a closely allied discipline;
- Experience in infrared/optical observational astronomy;
- Ability to design, execute and write up research independently;
- A developing track record of peer reviewed publications in international journals;
- Good time management and planning skills, with the ability to meet tight deadlines and work effectively under pressure;
- Excellent communication skills, both written and verbal with the ability to communicate your research at national and international conferences;
- Proven ability to manage competing demands effectively, responsibly and without close support;
- A proven ability to work well both individually and in a team;
- A willingness and motivation to learn new techniques;
- A strong commitment to your own continuous professional development.



You may also have:

- Experience of pursuing external funding to support research;
- Experience with spectroscopy and high-resolution techniques;
- Experience of radiative transfer modelling;
- Experience in working on Star Formation.

## 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:

**[Professor René Oudmaijer](#)**, School of Physics and Astronomy

Tel: +44 (0)113 343 3886

Email: [R.D.Oudmaijer@leeds.ac.uk](mailto:R.D.Oudmaijer@leeds.ac.uk)

## Additional information

### Faculty and School Information

Further information is available on the research and teaching activities of the [Faculty of Engineering & Physical Sciences](#), and 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](mailto:disclosure@leeds.ac.uk).

### **Criminal record information**

#### **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.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

