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| Last updated: | 30/10/2023 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow in Observational Astronomy** | | |
| Standard Occupation Code: (UKVI SOC CODE) | 2119 - Natural and social science professionals | | |
| School/Department: | Physics & Astronomy | | |
| Faculty: | Engineering and Physical Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Dr. Manda Banerji-Wright | | |
| Posts responsible for: |  | | |
| Post base: | Office-based | | |

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| Job purpose |
| To undertake research software development in accordance with the specified research project under the supervision of the grant holder. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | To carry out research software development within the framework of the funded project. | 50 % |
|  | Regularly disseminate findings by taking the lead in preparing publication materials for refereed journals, presenting results at conferences, or exhibiting work at other appropriate events. | 10 % |
|  | Collaborate/work on research software development with colleagues in other institutions. | 20 % |
|  | Contribute to the supervision of students | 10 % |
|  | Develop new ideas and write bids for new allocations of computing time | 5 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder | 5 % |

| Internal and external relationships |
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| Direct responsibility to holder of research award – Dr. Manda Banerji as well as the Astronomy group.  Collaborators/colleagues in institutions within the UK involved in Rubin and Euclid, in particular Lancaster University, as well as international institutions involved in both projects. |

| Special Requirements |
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| To attend national and international conferences for the purpose of disseminating research results.  *Applications for Research Fellow positions will be considered from candidates who are working towards or nearing completion of a relevant PhD qualification. The title of Research Fellow will be applied upon successful completion of the PhD. Prior to the qualification being awarded the title of* ***Senior Research Assistant*** *will be given.* |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD or equivalent professional qualifications and experience in Astronomy, Astrophysics or a related area  Experience with large astronomical surveys and/or software development in astronomy | Experience of high-performance computing  Experience of astronomical databases |  |
| Planning and organising | Able to organise own research activities to deadline and quality standards. Able to set milestones and deliverables and liaise with Project Manager on these | Record of working within large projects and delivering outputs |  |
| Problem solving and initiative | Able to develop understanding of complex problems and apply in-depth knowledge to address them  Able to develop original techniques/methods |  |  |
| Management and teamwork | Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development | Desire to contribute to the supervision of undergraduate and postgraduate research projects |  |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience  Able to present research results at group meetings and conferences  Able to write up research results for publication in leading peer-viewed journals  Work proactively with colleagues in other work areas/institutions, contributing specialist knowledge to achieve outcomes |  |  |
| Other skills and behaviours | Understanding of relevant Health & Safety issues  Positive attitude to colleagues and students |  |  |
| Special requirements | Able to attend national and international conferences to present research results |  |  |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| x Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally**  (<30% of time) | **Frequently**  (30-60% of time) | **Constantly**  (> 60% of time) |
| Outside work |  |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: |  |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) |  |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers) |  |  |  |
| **PHYSICAL ABILITIES** | | | |
| Load manual handling |  |  |  |
| Repetitive crouching/kneeling/stooping |  |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods |  |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) |  |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height |  |  |  |
| Repetitive reaching at shoulder height |  |  |  |
| Repetitive reaching above shoulder height |  |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public |  |  |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |