

Job Summary

The Institute of Gravitational Wave Astronomy at the University of Birmingham invites applications for 3-year Postdoctoral Prize Fellowships.

The Institute of Gravitational Wave Astronomy is one of the leading research centres worldwide focusing on the revolutionary field of gravitational wave astronomy and related areas. The Institute has a rich portfolio of research activities ranging from quantum optics and interferometry, to data analysis, the astrophysics of gravitational-wave sources, multi-messenger astronomy, and tests of strong-field gravity. Institute members play leading roles in the GEO Collaboration, the LIGO Scientific Collaboration, the Laser Interferometer Space Antenna, the European and International Pulsar Timing Array Collaboration, and the Einstein gravitational-wave Telescope. The Institute has excellent laboratory and computer facilities. Further information about the Institute and its work can be found at our home page, at <http://www.birmingham.ac.uk/gravitational-waves>.

The Institute has secured substantial funding for expansion, and is expecting to add multiple faculty lines to the 8 existing permanent faculty. The Institute has also instituted a Postdoctoral Prize Fellowship programme to attract the top young scientists in the field. The Fellows will have the opportunity to set independent research programmes and collaborate with the existing faculty, postdocs, and graduate students at the Institute and the School of Physics and Astronomy. Fellows will benefit from a generous research and travel allowance. Top applicants in all areas related to gravitational-wave astronomy, including instrumentation, quantum measurement, data analysis, astrostatistics, transient astronomy, astrophysics theory, and general relativity are encouraged to apply.

The Institute is affiliated with the Astrophysics and Space Research group, one of the eight research groups active in the School of Physics and Astronomy, which has about 40 permanent academic staff. The group has a strong track record of attracting research funding. It is supported by an STFC consolidated grant and a variety of other grants from several sources, including STFC, EPSRC, EC and the Leverhulme Trust.

Role Purpose

- To create and disseminate knowledge through initiating and conducting original research, through publication of journal articles and contributions to scientific conferences.
- To enhance, complement and expand the research activities of the Institute.

Main Duties

- To pursue personal research including developing research ideas and winning support, including financial support
- To plan, publish and/or execute high quality research
- To project manage research activities, and/or supervise other research staff

- To present findings in high quality publications and conference proceedings
- To develop novel methodologies and techniques appropriate to the type of research being pursued
- To provide expert advice to colleagues and students within discipline
- To develop and make substantial contributions to public engagement activities of manifest benefit to the College and the University
- To contribute to some administrative activities within the University, typically relating to research
- To apply knowledge in a way that develops new intellectual understanding

Person Specification

- PhD in astronomy or physics or relevant disciplines
- Extensive research experience and scholarship within subject specialism
- Experience and achievement reflected in a growing international reputation
- Extensive experience and demonstrated success in planning, undertaking and project managing research to deliver high quality results
- Extensive experience of applying and/or developing and devising successful models, techniques and methods
- Experience and achievement in public engagement
- Ability to mentor, assist and guide research directions of PhD and/or undergraduate students