

Job description

Post title and post number	Post-Doctoral Research Fellow in Gravitational Wave Instrument Science- 55612
Organisation advertising Description	School of Physics and Astronomy College of Engineering and Physical Sciences
Post number	55612
Full-time/Part-time	Full Time
Duration of post	24 months
Post is open to:	Internal and External Candidates
Salary	Starting salary is normally in the range £28,982 to £37,768. With potential progression once in post to £40,082 a year
Additional information	Informal enquiries can be made to Professor Andreas Freise; adf@star.sr.bham.ac.uk
Terms and conditions	Research and Analogous Staff

Job summary

The School of Physics and Astronomy at the University of Birmingham invites applications for a 2-year postdoctoral research position in gravitational-wave instrument science.

The Gravitational-Wave group consists of 8 academic staff, 4 postdoctoral research staff, 16 postgraduate students and has a rich portfolio of research activities ranging from advanced optics and interferometry, to data analysis and astrophysics of gravitational wave sources. The group is a member of the GEO Collaboration, the LIGO Scientific Collaboration and has roles in the LISA International Science Team, the European and International Pulsar Timing Array Collaboration and the Einstein gravitational wave Telescope.

Main duties

To plan and carry out research, using appropriate methodology and techniques:

- Plan, publish and/or execute high quality research
- Present findings in high quality publications and conference proceedings
- Develop novel methodologies and techniques appropriate to the type of research being pursued
- Apply knowledge in a way which develops new intellectual understanding

Skills and Experience

- PhD with research experience in the relevant areas of physics
- Research experience and interests in one of the areas: laser interferometry, gravitational wave instrumentation
- High level analytical capability
- Ability to communicate complex information clearly

Research

- Experience and achievement reflected in a scientific research papers or conference contributions
- Experience and success in undertaking research and delivering high quality results
- Experience and interest in applying and/or developing and devising successful models, techniques and methods
- Experience in experimental laser optics
- Experience in quantum theory of laser interferometry

Teaching

- Ability to mentor, assist and guide research directions of PhD and/or undergraduate students

Scope of the Role

- Initiate, conduct and disseminate world-class research in the subject area
- Contribute to the development of research strategies
- Publish results of own research
- Contribute to the supervision of research projects by PhD and undergraduate students
- Contribute to the scientific environment of the research group, through attendance at group meetings, discussion session and journal clubs.

Planning and Organising

- Plan high quality research
- Plan and organize research group activities and contribute to organisation of ongoing collaborations

Decision Making

- Develop research ideas
- Decide how to develop and undertake the research
- Decide where and when to present research findings and what publications and conferences to target for this purpose (with guidance)
- Contribute to advising and supervising PhD and undergraduate students

Internal and External Relationships

- Participate in and develop external networks
- Provide expert advice to staff and students within the discipline
- Liaise with external collaborators on the research, where appropriate
- Give presentations and/or contribute to presentations at national and/or international conferences
- Liaise with the relevant external research community via seminars and conferences