Laboratoire d'Astrophysique de Bordeaux
Observatoire Aquitain des Sciences de l'Univers
Université de Bordeaux – CNRS (UMR 5804)

POST-DOCTORAL OFFER

Geodetic and astrometric VLBI with the European VLBI Network

The Laboratoire d'Astrophysique de Bordeaux (LAB) invites applications for a post-doctoral position in the area of geodetic and astrometric Very Long Baseline Interferometry (VLBI). The position is funded under the JUMPING JIVE project[1] and is targeted to develop and promote the use of the European VLBI Network (EVN) and European VLBI data processor at the Joint Institute for VLBI ERIC (JIVE) for geodetic and astrometric applications.

The EVN is an interferometric array of radio telescopes located primarily in Europe and Asia, with additional antennas in Africa and Puerto Rico, which performs high angular resolution observations of cosmic radio sources. JIVE is an ERIC (European Research Infrastructure Consortium) entity that operates the EVN VLBI data processor and provides front-line support to EVN stations and EVN users. JUMPING JIVE is a EU Horizon 2020 project that involves twelve partners and is dedicated to enhance the JIVE infrastructure in various ways, among which the implementation of geodetic capabilities to the JIVE data processor.

The work to be carried out by the post-doctoral fellow follows up on the implementation of such geodetic capabilities by the JIVE team. After an initial verification phase using test data sets, the focus will be placed on the analysis of recently-acquired observations to measure the geodetic positions of EVN telescopes. Combined with previous observations, these data will also permit the determination of the long-term motion of the radio telescopes. Additional astrometric-type applications taking advantage of the new data processor capabilities, e.g. to explore the potential of the EVN to strengthen VLBI celestial reference frames at the standard S/X frequency band or at higher frequencies will be considered as well.

Required qualifications

Applicants should hold a Ph.D. in geodesy, astrometry or astronomy and have experience with VLBI. Knowledge of post-processing and geodetic/astrometric VLBI analysis software would be an asset. Good spoken and written command of English is required.

Environment

The working place will be at the LAB premises located on the campus of the University of Bordeaux, about 20 min from the city center using the tramway. The LAB is a research unit funded jointly by the University of Bordeaux and CNRS, employing 70 people (scientific and technical staff, Ph. D. students and postdocs). Topics of research at the LAB cover a variety of themes, ranging from planetary atmospheres to star formation, Galactic archeology and extragalactic astronomy. Astrometry and radioastronomy techniques are widely used within the institute. The LAB is a component (analysis center) of the International VLBI Service for geodesy and astrometry (IVS) and has close ties with the EVN and JIVE. The successful applicant will be integrated to a team of 5 persons whose work is focused on geodetic, astrometric and astrophysical VLBI. Bordeaux is a pleasant city near the Atlantic ocean in the Southwest of France, with high quality of living and a vibrant cultural life.

[1] See http://www.jive.eu/jumping-jive for details on the JUMPING JIVE project.

How to apply

Interested applicants should submit a cover letter indicating their interest and motivation for the position, a Curriculum Vitae and a description of their research accomplishments and experience. The documents should be merged into a single pdf file and sent to Patrick Charlot (patrick.charlot@u-bordeaux.fr). Applicants should also arrange for two or three letters of recommendation to be sent to the same address.

The application deadline is July 18, 2018.

Information on the position

Employer:	CNRS
Duration of contract:	2 years
Planned starting date:	01/10/2018
Salary:	2530 € monthly gross or higher, according to work experience.
Social benefits:	As stipulated in French law (include social security, sick leave, holidays, maternity/parental leave,...).
Work place:	LAB, Université of Bordeaux, OASU, Bât B18N, Allée Geoffroy Saint Hilaire, CS 50023, 33615 Pessac Cedex, France.
Trips:	Traveling to JIVE in the Netherlands may be required initially for verification of the implemented geodetic capabilities.

Contact for more information

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