

Post-doctoral fellowship at Laboratoire d'Astrophysique de Bordeaux

### **Physical properties of evolved open clusters in the Gaia era**

**Location:** Bordeaux University, France

**Duration:** 2 years

**Application deadline:** 15 September 2017

**Start:** January 2018

The Laboratoire d'Astrophysique de Bordeaux (LAB) invites applications for a postdoctoral position related to the scientific exploitation of Gaia Data Release 2 to be published in April 2018.

The ESA Gaia satellite has been scanning the sky since mid-2014, providing the most extensive astrometric, photometric and spectroscopic survey of our Galaxy to date, revealing the 3D distribution and space motions of more than one billion stars. In particular Gaia will enable a new type of exploration of open clusters which are fundamental objects to trace the history of the galactic disc and to test theories of star formation and evolution. Open clusters have also received much attention from the ground and a huge amount of valuable observing material is available for analysis.

The successful candidate will work on a project entitled 'Physical properties of evolved open clusters in the Gaia era' funded by CNES, the French spatial agency. The aim is to determine the physical properties of nearby old open clusters using the Gaia astrometry combined with photometric and spectroscopic data available from Gaia and from the ground. The project will provide new insights on how OCs dissolve and populate the Galactic field. It will also provide a list of benchmark objects with updated member lists and well-determined properties to be used for the validation of stellar evolution theories. The candidate will join an international group of experts in stellar physics and galactic archeology collaborating on this project.

Applicants should hold a PhD degree in astronomy and are expected to have a solid experience in galactic archeology and stellar spectroscopy. Familiarity with data management and organization would be an asset.

The LAB is located in a university campus, in the Bordeaux metropolitan area. About 30 astronomers work on a variety of astrophysical topics, ranging from planetary surfaces and atmospheres to star formation and extragalactic astrophysics. The beautiful city of Bordeaux offers one of the highest quality of living and a vibrant cultural life, near the Atlantic coast.

The net monthly salary between 2363 € and 2817 € will depend on previous experience. The contract administrated by CNRS will carry all social benefits stipulated in French law employment such as social security, maternity/parental leave, sick leave, holidays leave...

Applications should include a cover letter and curriculum vitae, including statements on education and research experience. The documents should be merged into a single PDF to be sent to Caroline Soubiran ([caroline.soubiran@u-bordeaux.fr](mailto:caroline.soubiran@u-bordeaux.fr)). Applicants should arrange for three letters of recommendation to be sent to the same address.

Contact: Dr Caroline Soubiran [caroline.soubiran@u-bordeaux.fr](mailto:caroline.soubiran@u-bordeaux.fr)