

Post-doctoral position to work within Gaia DPAC (Data Processing and Analysis Consortium) to adequately process resolved binaries

The Gaia Data Processing and Analysis Consortium (DPAC) is a consortium of over 400 scientists and software engineers who are processing the data that arrives from ESA's Gaia satellite.

A major problem to be solved before Gaia Data Release 4 (2025) relates to stellar images not correctly matched by a single point-spread function (PSF). These situations cause severe problems in the further astrometric and binary-star processing, handled by the so-called Coordination Units "Core Processing" (CU3) and "Object Processing" (CU4). The objective of the project is to solve this problem by adding the necessary processing to the existing architecture.

Although based in Brussels (Université libre de Bruxelles), the successful candidate will work in close collaboration with colleagues from CU3 and CU4, located at ESAC (Madrid), Observatoire de Paris and CNES (Toulouse).

The Brussels Gaia DPAC team consists of three researchers (A. Jorissen, C. Siopis, G. Sadowski) working in the framework of Gaia CU4-NSS ("Non-single stars") who will provide regular guidance as well.

Applicant's Profile:

- The candidate must have a PhD in physics, preferentially astrophysics.
- The candidate must have a strong interest in "big data" processing (knowledge of Java is an asset).
- Some knowledge about image processing, astrometry and the Gaia DPAC environment will be a strong asset.
- Working in such an international team requires capacity of teamwork and a very good level of English language.

Interested candidates should send their CV with a motivation letter and request two referees to send their recommendation letter directly to A. Jorissen (Alain.Jorissen at ulb.be)

The contract is for one year, with possible extension depending on funding. It is funded by Belspo - PRODEX (Belgian Science Policy Office).

Applications are open until December 31, 2021. The position should start as soon as possible.

Université Libre de Bruxelles is a complete university maintaining 40 bachelor and 150 master programs, for 30 000 students of 140 nationalities, and hiring 9000 employees. More information on the Institut d'Astronomie et d'Astrophysique, belonging to the Physics Department of the Science Faculty, can be found at <http://www.astro.ulb.ac.be>