

Software Developer for Euclid Data Model

2-year position

The CEA Paris-Saclay Department of Astrophysics (DAp) invites applications for a 2-year fixed-term contract (CDD) to work on the Euclid data model. Euclid is a satellite, planned for launch in 2022, that aims to improve our understanding of the nature of dark energy, dark matter and gravity. The data model constitutes an integral tool for ensuring the cohesion between the various software packages needed to process Euclid data.

The successful candidate will join the CosmoStat team to work with Dr. Samuel Farrens and various members of the international Euclid Consortium on maintaining and developing the data model of the Euclid Science Ground Segment (SGS). CosmoStat gathers experts in astrophysics, signal processing and data science to work on challenging problems in cosmology such as weak gravitational lensing, cosmic microwave background, modified gravity, gravitational waves, radio interferometry, blind source separation, and machine learning. CosmoStat also offers a collaborative and educative environment to help members learn and develop new skills, which are often highly transferable to other domains.

The objectives of this position will be to:

- interact regularly with the Euclid Data Model team and developers in the Euclid Consortium to adapt the data model to requirements of the mission,
- help users adhere to the data model for internal science challenges.

The candidate should hold at least a masters degree in either physics/astrophysics, engineering, mathematics or computer science. Candidates with either a scientific or technical background are welcome to apply, but good knowledge of both Python and C++ programming languages is essential. The ability to clearly communicate complex technical ideas, and experience with mapping relational data models into XML and schemas would be a plus.

The position includes an internationally competitive salary and generous travel budget. French language skills are not required. Applicants should send a CV and research statement to Samuel Farrens, and arrange for two reference letters to be sent to the same email address before the application deadline.

CEA Paris-Saclay is located 20 km south of Paris, France, in the vicinity of various universities and other research centres. The Paris region contains numerous research institutes. The CosmoStat group is a diverse and multi-disciplinary team of researchers working on various topics in cosmology. Our group is committed to diversity and equality, and encourage applications from women and underrepresented minorities. We support a flexible and family-friendly work environment.

Benefits for this position include retirement, health care, parental leave, vacation and sick days, subsidized meals, discount for public transport, sport and culture, French language classes.

- *Contact:* Samuel Farrens (samuel.farrens@cea.fr).
- *URL:* www.cosmostat.org
- *Deadline for applications:* August 31th, 2020.
- *Start date:* February 1st, 2021.
- *Contract duration:* 24 months.