

Postdoctoral position on weak gravitational lensing for Euclid and UNIONS

2-year postdoctoral research position

The CEA Saclay astrophysics department (DAp) invites applications for a postdoctoral position in cosmology. The successful candidate will work with Dr. Franois Lanusse on 3D lensing for Euclid, and with Dr. Samuel Farrens and Dr. Martin Kilbinger on maintaining and developing an end-to-end galaxy shape measurement pipeline.

The successful candidate will join the CosmoStat team that 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. The objective of this postdoctoral position are twofold: firstly, to develop and integrate new methods for handling 3D lensing data into the Euclid ground segment, and secondly, to improve and maintain the galaxy shape measurement pipeline developed by the CosmoStat team. Existing ground-based data from the UNIONS/CFIS survey are available to test the methods developed in this project. The postdoc will have the opportunity to join the Euclid and UNIONS/CFIS consortia. The successful applicant will also have the opportunity to use 20% of their time to develop their own research interests in collaboration with CosmoStat members.

The candidate should hold a PhD in either physics/astrophysics, engineering, mathematics or computer science. Candidates with either a scientific or technical background are welcome to apply. 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 Franois Lanusse, Martin Kilbinger and Samuel Farrens, and arrange for three reference letters to be sent to the same email address before the application deadline.

CEA Saclay is located 20 km south of Paris, France, in the vicinity of various universities and other research centers. 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:* Franois Lanusse (francois.lanusse@cea.fr), Martin Kilbinger (martin.kilbinger@cea.fr) and 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.