

Permanent research position in observational cosmology

CNRS/IN2P3 and the LPNHE cosmology group welcome applications for a permanent researcher position in observational cosmology, focusing on *Dark Energy physics with the large optical surveys of the next decade*. Young researchers, preferably with a good postdoctoral experience and an excellent research record are encouraged to apply.

Members of the LPNHE cosmology group are involved in two major Dark Energy projects of the next decade : DESI and LSST. Up to now, the main focus of the group has been the precision measurement of cosmic expansion, using type Ia supernovae in the $z < 1.5$ redshift range (SNLS, Subaru/HSC), and with BAO in the Ly- α forest at high redshifts ($z \sim 2.3$) (eBOSS). New activities are emerging within the group, notably connected to the study of structure formation: lensing tomography and measuring the growth of structure in the local Universe with nearby type Ia supernovae, both within LSST. The group also hosts theoretical research centered around the physics of Dark Matter clustering, and structure formation in the non-linear regime. Finally, we are also carrying out instrumentation projects, some connected to the construction effort of LSST and DESI (e.g., contribution to the focal plane and filter exchange system for LSST, in-dome calibration system for DESI), others are motivated by the stringent requirements of future analyses. In particular, we have developed a strong expertise on precision flux metrology (required by future SN surveys) and on CCD effects that impact shape measurements at the percent level (required by weak lensing analyses).

The joining scientist is expected to give strength to the LPNHE cosmology group in one of the Dark Energy analyses listed above. She/he will develop her/his research inside one of the corresponding highly competitive international collaborations, namely [DESC-LSST](#) or [DESI](#).

In order to apply to this 2020 CNRS international competition you need to fill out the following form (select competition number 01/02):

<https://www.dgdr.cnrs.fr/drhchercheurs/concoursch/default-en.htm>

The deadline is **January 7, 2020 12pm** (Paris time). If you have any questions regarding the position or the application process, please contact the LPNHE cosmology group, e.g. [Pierre Antilogus](#) (LSST), [Pierre Astier](#) (LSST, Euclid), [Nicolas Regnault](#) (LSST, Subaru/HSC) or [Christophe Balland](#) (DESI, eBOSS).

The LPNHE cosmological group, includes today 11 staff-scientists, 2 post-docs and 2 PhD-Students. It is hosted by the [LPNHE laboratory on the Pierre et Marie Curie](#) (Jussieu) campus of Sorbonne University, at the center of Paris. More information on the laboratory and on the group activities can be found at <https://lpnhe.in2p3.fr/> .