

# Post-Doctoral Fellow in Theoretical condensed matter physics

<https://wwwdev.espci.fr/fr/espci-paris-psl/emploi/archives/2017/post-doctoral-fellow-in-theoretical-condensed>

## Laboratoire d'accueil :

ESPCI (<https://www.espci.fr/en/>) is a leading French Grande Ecole founded in 1882, educating undergraduate and graduate students through a programme merging basic science and engineering, as well as a world-renowned research institution. ESPCI Paris hosts 9 research units, all associated to CNRS and/or INSERM and/or other Parisian Universities in the form of joined research units, covering the fields of physics, chemistry and biology. Favouring interdisciplinary, and operating at the frontiers between fundamental research and innovation, are two major objectives of the School. ESPCI is also a part of Paris Science et Lettres (PSL) Research University (<https://www.univ-psl.fr/en>) an ambitious collaboration project of 26 research institutions in a broad range of disciplines from engineering, chemistry and oncology to economics, management, the humanities and the performing arts.

## Offer description :

Postdoc position in the group of Theory of Strongly Correlated Materials of the LPEM laboratory in ESPCI Paris. The recruited person will pursue a line of research on the analysis of the 2D Hubbard model with Cellular Dynamical Mean-Field Theory, Dynamical Cluster Approximation and related methods, investigating the recently highlighted relation between the pseudogap phase and the Hund's metal physics. Other opportunities of research within the objectives of the ERC Consolidator project StrongCoPhy4Energy and collaborations within the project group and outside will be available to the candidate depending on his/her interests and competencies.

## Profile of the Candidate :

Requirements : PhD or equivalent PhD in physics (experience in theoretical physics or condensed matter physics preferred). Some experience in Dynamical Mean-Field Theory (and especially in cellular-DMFT and/or DCA) represent the ideal asset. Experiences in other theoretical methods for many-body physics will be highly appreciated, as well as experience with Density Functional Theory.

## Début :

1 september 2017

## Durée :

CDD one year

## Contact

Nom : Luca DE MEDICI Principal Investigator (PI) of the ERC Consolidator Grant project StrongCoPhy4Energy (GA No 724177) Mail : [luca.demedici@espci.fr](mailto:luca.demedici@espci.fr) Candidatures (lettre de motivation et CV) à transmettre par courrier électronique.

## Accès

Métro ligne 7 (Place Monge/Censier Daubenton) RER B (Luxembourg) Bus 21, 27 & 47 3 stations Vélib proches