

A position of Chaire de Professeur Junior will open by the end of August 2025 at Laboratoire de Physique Théorique et Modélisation (a joint CNRS and CY Cergy Paris Université research laboratory in Pontoise, North-West Ile de France). Starting date Dec 1st 2025.

This position is a teaching/research tenure track contract of 5 years granted by CY on proposition of a Hiring Committee, on a competitive basis, and leading to a permanent, full Professor position at CY upon advice of a Tenure Committee.

LPTM aims at recruiting a high-level junior candidate at the interface of Artificial Intelligence with Statistical Physics.

The LPTM is indeed interested in "strengthening its expertise in applying artificial intelligence (AI) methods to statistical physics, particularly through its collaboration within the European university consortium EUTOPIA. The development of AI-related projects is part of the laboratory's strategic trajectory for the next five-year contract, drawing on the growing number of researchers in the laboratory training and working in this field. It also aligns with the ambition of CY Cergy Paris Université to build a medical school with strong connections to all its existing research activities.

The research activities of the LPTM focus on low energy theoretical physics, statistical physics, and computational physics, and mainly concern the study of problems in quantum physics, condensed matter, non-equilibrium phenomena, non-linear physics, soft and active matter, complex systems and integrable models. The LPTM is also committed to the mission of transferring knowledge, through teaching and training activities at CY Cergy Paris Université.

The use of artificial intelligence methods opens up a wide range of possibilities for interactions for the laureate recruited with this profile, not only with the LPTM's major themes, but also with other partner laboratories within the Fondation des Sciences de la Modélisation, such as the computer science ETIS laboratory.

Scientific Project Summary:

Artificial intelligence has experienced considerable growth in recent years worldwide, with diverse applications in numerous scientific and industrial fields. Among these advances, machine learning and neural network-based methods have established increasingly close connections with statistical physics. This position aims at strengthening this interface by recruiting a researcher capable of developing advanced artificial intelligence techniques to address statistical physics problems, or applying statistical physics concepts to deepen understanding and improve machine-learning algorithms.

Summary of teaching project:

It is essential that this recruitment be based on the laureate's ability to deliver artificial intelligence teaching, in coordination with the general strategy of CY Cergy Paris Université, and courses in numerical physics, in addition to contributing to teaching activities of the physics department at all levels and participating to the development of the existing Master programme.

The CPJ laureate will participate, through their own connections, in expanding the international network of CY Cergy Paris Université and in its implementation at the research and training levels (joint PhD or Master's degree supervision, participation in the development and management of joint degrees).

The project comes with a financial package from French ANR of ca. €200,000 breaking down as a PhD contract for one doctoral student and financial support for equipment purchase and operating expenses (missions, conferences, etc.).

For more details check the official French job description at :