



RECRUITMENT OF ASSOCIATE/FULL PROFESSORS 2020 SESSION

Grenoble INP, Engineering Institute of the Univ. Grenoble Alpes, labeled Initiative of Excellence, is a public institution offering engineering courses with solid basic scientific content, a high technological specialization in connection with strong societal challenges related to digital, industrial, environmental and energy transitions. and a major internationalization of its courses. Grenoble INP employs more than 1,200 people (associate and full professors, lecturers, administrative and technical staff) and has 5,500 students in its 6 engineering schools (Ense3, Ensimag, Esisar, GI, Pagora, Phelma) and the Prépa des INP. From 2020, Polytech Grenoble and Grenoble IAE join Grenoble INP and considerably expand its training offer. Grenoble INP is recognized in national rankings as one of the leaders in engineering with international visibility. It is member of international engineering networks as well as the European university UNITE!.

Grenoble INP is a mother institution of more than 30 research laboratories, some of them international, and platforms where state-of-the-art research is carried out to develop knowledge, promote it to our industrial partners and transfer it to students. Grenoble INP is thus at the heart of the technological challenges of the future: Energy and materials; Digital sciences; Micro nanotechnology; Future industry and eco-efficient production in which international rankings recognize it as a leading player.

POSITION DESCRIPTION

Short profile : Numerical probabilities, Financial Mathematics

Category : PR (Full Professor)

Job number : 26 PR 0402

Field of expertise :

Section 1 : 26

Recruitment date : 1/09/2020

Location : Grenoble

Restricted regime area (ZRR) : YES NO
(French governmental protection of scientific and technological research program)

Key words : numerical probabilities, financial mathematics, computational finance, modeling, approximation and stochastic optimizations.

TEACHING

School: Ensimag

School website : <http://ensimag.grenoble-inp.fr/>

Contact persons : : christophe.rippert@grenoble-inp.fr, jean-louis.roch@grenoble-inp.fr

Ensimag is one of the best French engineering school in the digital and information technology domain. It offers very high-level conceptual and technological classes in the fields of computer science and applied mathematics. It prepares people for digital engineering jobs in many sectors, its core sectors such as information systems, banking, embedded systems, networks, but also the industry as a whole, for digitalization, design and decision-making tools. This professor position is opened in a dynamic context in terms of both teaching and research, in the field of probability in the broadest sense. Indeed, the challenges in Data Science cover a variety of issues: learning large scale data by distributed stochastic algorithms, stochastic modeling of complex phenomena, random completion of matrices for Netflix type notation systems, etc. On the Grenoble site, the demands on these themes emerge from all disciplines and are considerable.

Teaching profile:

For 30 years, Ensimag has been offering a financial engineering course covering all aspects of this domain. Quite attractive, very good students in mathematics and computer science come to Grenoble to take it. There are significant teaching needs around this topic in the second and third years of the engineering curriculum and in the Quantitative Finance Master degree (managed by the IAE but joint with Ensimag). The recruited person must be able to teach applied probability, financial mathematics with a thorough knowledge of financial instruments and markets, numerical methods for finance (Monte-Carlo methods, parallel computing).

To run this crucial course for the Grenoble site, it is essential to have at least one senior specialist in the field of numerical probability and financial mathematics on site.

The recruited person will also be required to participate in the teaching of the Ensimag common core curriculum (1st year and about 75% of the 2nd year courses) which constitutes the foundation of our engineering students knowledge.

RESEARCH

Research laboratory: LJK (UMR 5224 Grenoble-INP, UGA et CNRS)

Département DATA: Données & Aléatoire :Théorie & Applications

Website : <https://ljk.imag.fr/>

Contacts : Stephane.Labbe@univ-grenoble-alpes.fr

The Jean Kuntzmann Laboratory is built upon two fields of study: computer sciences and applied maths. Thanks to this pluridisciplinarity, the structure is rich in research thematic but also in human terms. This wealth lives to the LJK its dynamic and the fundamental issue of its direction team is then to maintain this emulation thanks to a cohesion policy.

In this spirit, we gave to the laboratory council reinforced prerogatives in order to enhanced personal investment of the LJK members in collective projects development but also in the global policy of the laboratory, in particular for recruitments perspectives and scientific animation. Furthermore, we organize convivial events but also favorize the development of team and departments seminars.

This work is facilitated by the brand new building granted in June 2016 to the laboratory and also thanks to the personal investment of each member of the LJK.

With all these benefits, we work, each day, on the improvement of the working environment, prioritising human exchanges, listening of each one needs to allow a serene working climate, in good mood, required foundation for the scientific success of the laboratory.

The LJK is strongly linked with companies, especially through MaiMoSiNE et AMIES structures.

Research profile :

In order to meet the numerous requests in data sciences, especially around the issues of learning in great dimensions, development of distributed stochastic algorithms, stochastic control, stochastic modelling of complex phenomena, matrix completion, the D.A.T.A. department (statistic and probability) has set target to extend research axes in applied and numeric probabilities domain.

We propose to recruit a probabilist, renown for its research in numeric probabilities in order to develop the following thematics: Monte Carlo numerical methods, random matrices, stochastic control, financial mathematics.

The candidate will reinforce the interactions of LJK with the Grenoble scientific environment: with LIG laboratory on learning in great dimension issues and distributed computations, the GIPSA-Lab concerning numerical stochastic methods and random matrices. She/he will be involved in responding to the ever growing numerous sollicitations of other disciplines in this research thematics and of innovation sollicitation from Grenoble region enterprises.

The excellence of the applicants' research activities must be certified by recent publications in high quality international journals or conferences in their field.

PARTICULARITIES AND CONSTRAINTS

Administrative activities linked to the functions of full professor: responsibility of teaching unit or department.

HOW TO APPLY

Online application must be done on the website Galaxie from february the 25th 2020, 10 am (GMT+1) to april the 9th 2020, 16 pm (GMT+1). Postal applications won't be accepted.

The interview will include simulation/situational exercises. The interview will be held in French; a part of it could be held in English. Further information will be provided with the letter of convocation.