



PhD and postdoc openings in machine learning & signal processing

Project FACTORY

New paradigms for latent factor estimation

Announcement

Applications are invited for 3-year PhD and 2-year postdoc positions to work with **Cédric Févotte** (CNRS senior scientist) on matrix factorisation techniques for data processing. The positions are part of the project FACTORY (*New paradigms for latent factor estimation*), selected for funding by the **European Research Council** under a Consolidator Grant (2016-2021). The successful candidates will be based in **Toulouse, France**. The preferred starting period is **autumn 2016**.

Project description

The project concerns **matrix factorisation** and **dictionary learning** for **data analysis** at large, with an emphasis on statistical estimation in mean-parametrised exponential models, non-convex optimisation, stochastic algorithms & approximate inference, representation learning, and applications to **audio signal processing, remote sensing & data mining**.

The European Research Council offers highly competitive funding for scientific excellence. Successful candidates will enjoy an inspiring and resourceful environment, with the possibility of travelling to conferences and visiting other national or international labs.

More information at <http://www.irit.fr/~Cedric.Fevotte/factory/>

Host institution and place of work

Successful candidates will be employed by the **Centre National de la Recherche Scientifique** (CNRS, the National Center for Scientific Research). CNRS is the largest state-funded research organisation in France, involved in all scientific fields. FACTORY will be hosted by the **Institut de Recherche en Informatique de Toulouse** (IRIT), a joint laboratory of CNRS and Toulouse universities & engineering schools. IRIT is among the largest computer & information sciences labs in France. Toulouse is the fourth-largest city in France, the capital of the Midi-Pyrénées region in the South-West of France, and is praised for its high quality of living. The physical location for the project is the ENSEEIHT campus (Signal & Communications group), in a lively neighbourhood of the city center.

Candidate profiles and application

Prospective applicants should have a MSc or PhD in **machine learning, signal processing, applied mathematics, statistics**, or a related discipline, good programming skills, and good communication skills in English, both written and oral. The successful candidates will have the flexibility to choose a topic within the range of the project, according to their experience and preferences.

The salary for PhD positions is ~1400€ net per month and may be complemented with teaching or consulting activities (subject to availability). The monthly salaries for postdoc positions vary with experience and are in the 2300–2800€ net range. All positions come with health insurance & other social benefits.

Applicants are requested to send a CV, a brief statement of research interests and the contact details of two referees in a single PDF file. Applicants to PhD positions are also requested to include academic transcripts. Applications will be collected until 29th April 2016, and then on until all positions are filled.

Applications and informal enquiries are to be emailed to **cedric(dot)fevotte(at)irit(dot)fr**