Post-Doctoral Position in Mathematical Statistics, Université de Rouen Normandie, France

Functional linear models with functional response

A one year post-doctoral position is opening at Laboratory Raphaël Salem (CNRS and University of Rouen Normandie) in Rouen, in the fields of nonparametric statistics and functional data analysis. It is funded by the ANR-project SMILES (Statistical Modeling and Inference for unsupervised Learning at largE-Scale, ANR-18-CE40-0014).

Position description

Location. LMRS (Laboratoire de Mathématiques Raphaël Salem), Université de Rouen Normandie, Saint-Étienne du Rouvray, 30min. south-west of Rouen.

Starting date. September (or october) 2020.

Duration. 12 months.

Salary. approximately 2280€ net per month. Additional fundings for travels and equipments.

Scientific Project

The candidate will be collaborating with Gaëlle Chagny (LMRS, Univ. Rouen Normandie), and Angelina Roche (CEREMADE, Univ. Paris-Dauphine), members of the Rouen team of the ANR project SMILES (Statistical Modeling and Inference for unsupervised Learning at largE-Scale). The project is mainly devoted to statistical inference and modeling for complex data, at large scale, through regression problems and unsupervised learning.

The subject of this postdoctoral stage is part of the functional data analysis section of the project. It consists in studying the link between a functional variable and a functional covariate via the functional linear model with functional response (see for instance Crambes et Mas 2013). The focus will be on adaptive estimation via methods inspired by Birgé et Massart (1998) or Goldenshluger et Lepski (2011). The theoretical background is at the interface between functional analysis, probability and nonparametric statistics.

Some general references about functional data analysis, as well as specific papers dealing with the functional linear model can be found in the bibliography below. The list is non-exhaustive.

Applications and contact

Candidate profile. A PhD in Applied Mathematics is required, with solid knowledge in statistics.

Applications. Applications must be submitted electronically via email, to `gaelle.chagny@univ-rouen.fr` and `roche@ceremade.dauphine.fr`. and consist of the following :

- a Cover Letter,
- a Curriculum Vitae,
- if possible, a link to the PhD thesis.

Contacts.

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