UNIVERSITÉ LAVAL

Faculté des sciences et de génie

Call for applications, PhD in Statistics, Université Laval

Joint modeling of interconnected individuals

An NSERC-funded research group working on joint modeling of longitudinal and survival data at Université Laval (Québec, Canada) seeks an exceptional candidate for a fully-funded PhD project ($27,000 per year for four years), to work on innovative research questions at the intersection of Statistics, Insurance and Network Science. The candidate will work under the supervision of Louis-Paul Rivest and in close collaboration with Thierry Duchesne and Antoine Allard, as well as with a major financial institution.

The project focuses on the development of new joint modeling methods to predict the behavior of individuals who are observed over time. While many methods already exist for joint modeling, most statistical models developed for this type of data assume independence between individuals. This project requires to deal with the case where links exist between individuals; these dependencies being described by a complex network. The objective of the project is therefore to incorporate these dependencies into the joint models. The new models will be implemented on large real-world databases in finance and insurance.

Qualifications:

- a M.Sc. (or equivalent) in Statistics or Mathematics;
- training in data analysis and programming;
- strong verbal and written communication and presentation skills;
- a commitment to working in an interdisciplinary and collaborative environment.

Applicants should submit the following:

- a 1-page cover letter that succinctly describes their background and qualifications;
- a full curriculum vitae (CV);
- transcripts of previous studies;
- contact information for at least 2 references.

Applications are submitted by email to Louis-Paul.Rivest@mat.ulaval.ca with subject line "Doctorat projet Alliance". Full consideration will be given to complete applications received before November 1st, 2021.