

PhD studentship (Full-time)



Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Mathematical Sciences
Supervisors	Principal supervisor: Professor/Dr Chengxiu Ling (XJTLU, Department) Co-supervisor: Professor/Dr Fei Ma, Conghua Wen(XJTLU, Department) Co-supervisor: Professor/Dr Corina Constantinescu-Loeffen(UoL, Department)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Extreme Cluster Analysis with Applications in Climate Changes and Risk Management
Contact	Please email Chengxiu.Ling@xjtlu.edu.cn (XJTLU principal supervisor's email address) with a subject line of the PhD project title

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in math or actuarial science, financial math. Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 6.5 or above, if the first language is not English. This position is open to all qualified candidates irrespective of nationality.

Degree:

The student will be awarded a PhD degree from the University of Liverpool (UK) upon successful completion of the program.

Funding:

The PhD studentship is available for three years subject to satisfactory progress by the student. The award covers tuition fees for three years (currently equivalent to RMB 80,000 per annum) and provides a monthly stipend of 5,000 RMB as a contribution to living expenses. It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. It is a condition of the award that holders of XJTLU PhD scholarships carry out 300-500 hours of teaching assistance work per year. The scholarship holder is expected to carry out the major part of his or her research at XJTLU in Suzhou, China. However, he or she is eligible for a research study visit to the University of Liverpool of up to three months, if this is required by the project.

Project Description:

This project will investigate the Extreme Cluster Structure (ECS) in the framework of Extreme Value Theory (EVT) to understand the extreme dependence and risk contagion schemes of disastrous events across time and location.

Empirical evidence shows the catastrophic risk of contemporaneous clusters across a span of time and various locations (firms, markets, countries). This project studies extreme cluster structure using basic statistical cluster techniques and extreme value theory. The main task is to detect extreme return clusters and its likely risk sources using geographic analysis machine and extreme cluster attribution methods. A large-scale of Monte Carlo simulations and case studies will be carried out to display the efficiency of theoretical findings.

This project is expected to bring out in-depth theoretical results in ECS, extensional applications for catastrophic risk prevention and intervention as well as the development of catastrophic insurance involved.

For more information about doctoral scholarship and PhD programme at Xi'an Jiaotong-Liverpool University (XJTLU): Please visit

<http://www.xjtlu.edu.cn/en/study-with-us/admissions/entry-requirements>

<http://www.xjtlu.edu.cn/en/admissions/phd/feesscholarships.html>

How to Apply:

Interested applicants are advised to email.....@xjtlu.edu.cn (XJTLU principal supervisor's email address) the following documents for initial review and assessment (please put the project title in the subject line).

- CV
- Two reference letters with company/university letterhead
- Personal statement outlining your interest in the position
- Proof of English language proficiency (an IELTS score of 6.5 or above)
- Verified school transcripts in both Chinese and English (for international students, only the English version is required)
- Verified certificates of education qualifications in both Chinese and English (for international students, only the English version is required)
- PDF copy of Master Degree dissertation (or an equivalent writing sample) and examiners reports available

Informal enquiries may be addressed to Professor/Dr. Chengxiu.Ling (Chengxiu.Ling @xjtlu.edu.cn), whose personal profile is linked below,

<https://www.xjtlu.edu.cn/en/departments/academic-departments/mathematical-sciences/staff/chengxiu-ling>