Xi'an Jiaotong-Liverpool University
西交利物浦大学

**PhD studentship (Full-time)**

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| Institution | Xi'an Jiaotong-Liverpool University, China |
| School | School of Mathematics and Physics |
| Supervisors | Principal supervisor: Dr Long Bai (XJTLU)<br>Co-supervisor: Dr Yaofei Xu(XJTLU)<br>Co-supervisor: Dr Ehsan Azmoodeh(UoL)<br>Co-supervisor: Dr Corina Constantinescu(UoL) |
| Application Deadline | Open until the position is filled |
| Funding Availability | Funded PhD project (world-wide students) |
| Project Title | Gaussian Risk Model and Its Applications in Finance |
| Contact | Please email Long.Bai@xjtlu.edu.cn (XJTLU principal supervisor's email address) with a subject line of the PhD project title.<br><br>The principal supervisor's profile is linked here: https://scholar.xjtlu.edu.cn/en/persons/LongBai/ |

**Requirements:**

A Master's degree with Merit and a Bachelor's degree with first-class or upper second-class honors are required for PhD admissions. Exceptional candidates holding only a Bachelor's degree may be considered on an individual basis in Mathematics, Probability and Statistics, Applied Mathematics, Actuarial Science, Financial Mathematics or other related majors. Evidence of good spoken and written English is essential. The candidate should have an IELTS (or equivalent) 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 99,000 per annum). It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. The scholarship holders are expected to conduct the majority of their research at XJTLU in Suzhou, China. However, they may apply for a short-term research visit to the University of Liverpool if the project requires it.

**Project Description:**

The Gaussian risk model is a foundational tool in risk assessment and management in the realm of finance. This proposal aims to delve into the theoretical foundations of the Gaussian risk model and explore its practical applications in the field. By investigating how this model can improve risk analysis, pricing strategies, and financial decision-making, this research intends to offer valuable insights for industry professionals, policymakers, and researchers. This research project can be further subdivided into the following three subtopics: (1) Portfolio Return Analysis Based on the Brownian Motion Risk Model; (2) Distribution Analysis of Mixed Fractional Brownian Motion Risk Model; (3) Risk Measure Analysis for the Functional of Gaussian Risk Model.

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

https://www.xjtlu.edu.cn/en/admissions/doctoral/entry-requirement-phd
https://www.xjtlu.edu.cn/en/admissions/doctoral/postgraduate-research-scholarships

**How to Apply:**

Interested applicants are advised to email Long.Bai@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 formal reference letters
- Personal statement outlining your interest in the position
- Certificates of English language qualifications (IELTS or equivalent)
- Full academic 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