

### PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, Suzhou, China
School	School of Mathematics and Physics
Supervisors	<i>Please list all the names in the supervisory team. It should be consistent with the information on your approved PGRS proposal.</i> Principal supervisor: Associate Professor Niels Gresnigt (XJTLU) Co-supervisor: Professor Thijs Kouwenhoven (XJTLU) Co-supervisor: Professor Martin Gorbahn (UoL)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Phenomenology of algebraic unification models describing three fermion generations
Contact	Please email niels.gresnigt@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 Physics, with a strong emphasis on theoretical/mathematical physics. 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 99,000 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 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:**

This project investigates the phenomenological predictions of algebraic unification models based on Clifford algebras, which have gained significant attention in recent years. Focusing on models that describe three generations of fermions, the research emphasizes generating testable experimental predictions in flavour physics. By connecting abstract algebraic structures with measurable observables, this work aims to advance our understanding of the Standard Model and its possible extensions, providing a framework for exploring the symmetries underlying particle physics.

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/global/entry-requirements/>

<https://www.xjtlu.edu.cn/en/admissions/global/fees-and-scholarship>

### **How to Apply:**

Interested applicants are advised to email [niels.gresnigt@xjtlu.edu.cn](mailto:niels.gresnigt@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 Associate Professor Niels Gresnigt ([niels.gresnigt@xjtlu.edu.cn](mailto:niels.gresnigt@xjtlu.edu.cn)), whose personal profile is linked below, <https://scholar.xjtlu.edu.cn/en/persons/NielsGresnigt>