

PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	School of Science
Supervisors	Principal supervisor: Dr Bailiang Li (XJTLU) Co-supervisor: Professor Cheryl McKenna Neuman (Trent University) Co-supervisor: Dr James Cooper (UoL)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Ripple formation under different atmospheric conditions
Contact	Please email bailiang.li@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 Atmosphere Science, Physical Geography, Environmental Science, or related disciplines. Previous knowledge and experience on aeolian processes is preferred. 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 six months, if this is required by the project.

Project Description:

Aeolian ripples are the common self-organized bedforms formed by wind-blown sand on Earth and some extraterrestrial surfaces. They are characterized by periodical wavy morphology with wavelength (ripple spacing) in a few centimeters and amplitude (ripple height) in a few millimeters.

Ripple formation is commonly believed to be controlled by wind speed, sand grain size, and air density. However, the variability of air density was often ignored in Earth studies while existing range of temperature and relative humidity can cause substantial spatial-temporal change in air density. These atmospheric conditions also influence the wind flow structures and sand surface cohesiveness, which have considerable effect on initiation of sand and sand transport.

However, very little is known on how these environmental factors control the ripple formation, which will be studied in this project. This research would help understand the controls on complex self-organization systems.

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 bailiang.li@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 Dr. Bailiang Li (bailiang.li@xjtlu.edu.cn), whose personal profile is linked below,
<https://www.xjtlu.edu.cn/en/departments/academic-departments/health-and-environmental-sciences/staff/bailiang-li>