



## Postdoc/PhD positions on multiscale modeling of debris flow and sediment transport at Tsinghua University, Shenzhen, China

Multiple postdoc and PhD positions are open at Tsinghua University to investigate debris flow and sediment transport in fluvial and coastal environments through a multiscale approach integrating experiments, simulations, and theory. The research will take place at Tsinghua University's Shenzhen International Graduate School (SIGS), located in Shenzhen, China, and is partly sponsored by NSFC and Tsinghua SIGS's scientific research startup funds.

Successful applicants will join a team managed by Dr. Lu Jing, Assistant Professor in the Institute for Ocean Engineering, SIGS, Tsinghua University. The research theme of Lu's group is "**Multi-Scale Mechanics for Earth and its Environment**", in line with the UN's and China's sustainable development goals. Their recent focus is on the flow and transport mechanics of granular materials from micro to macro scales, aiming at enhanced strategies for geohazard mitigation and sediment management.

Candidates having excellent experimental (micro-CT, RIMS, PIV/PTV), numerical (DEM-CFD/LBM, SPH, MPM, AI-aided methods), and/or theoretical (geomechanics, rheology, fluid dynamics) skills are sought. The positions are open to any citizenship and all qualified applicants are welcome.

### POSTDOC POSITIONS (UP TO FIVE)

#### Your Profile

You have a PhD degree in hydraulic/geotechnical engineering, applied mechanics, geoscience, physics, or a related field. Candidates specializing in one or more areas

listed above are preferred.

You are fluent in English and have excellent academic writing skills. A good track record of publications in field-leading journals is preferred.

### **Our Offer**

You will be appointed fulltime for two years with opportunities of extension. The position is available as soon as possible.

The gross annual income will be at least RMB 320,000 (approx. €45,600), including basic salary, rental allowance, and a talent subsidy from the Shenzhen government.

An extra subsidy of RMB 60,000 per year (approx. €8,500) will be available if successfully selected for “Shuimu Tsinghua Scholar Program”.

A competitive benefits plan will be offered. Additional benefits/subsidies are available if employed fulltime in Shenzhen upon completion of the postdoc research.

### **PHD POSITIONS (UP TO TWO)**

The PhD program will start in Sep 2023 and is four years (for candidates with a master’s degree) or five years (for candidates with a Bachelor’s degree) in duration.

You should have a degree in civil/hydraulic/ocean engineering, applied mechanics, geoscience, physics, or a related field by the starting date.

A range of scholarship opportunities are available (see links below for details) and monthly living allowance will be provided by the PI.

### **APPLICATION & USEFUL LINKS**

Please send a cover letter and a detailed CV (including a full publication list) to Dr. Lu Jing at [lujing@sz.tsinghua.edu.cn](mailto:lujing@sz.tsinghua.edu.cn). All positions are open until filled.

**Tsinghua University:** <https://www.tsinghua.edu.cn/en/>

**Tsinghua SIGS:** <https://www.sigs.tsinghua.edu.cn/en/>

**The PI’s personal website:** [https://www.sigs.tsinghua.edu.cn/jl\\_en/](https://www.sigs.tsinghua.edu.cn/jl_en/)

**Graduate admissions and financial aids:** <https://yz.tsinghua.edu.cn/en/>