

## Zhangyu SUN

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### EDUCATION

**The Chinese University of Hong Kong, Hong Kong, China** 2021.09 - 2025.08

Ph.D. in Earth and Atmospheric Sciences

Thesis Title: A Comprehensive Study of Rock Glacier Distribution, Velocities, and Water Storage in High Mountain Asia

Thesis advisor: Lin Liu

GPA: 3.975/4.0

**Graz University of Technology, Graz, Austria** 2024.01 - 2024.06

Visiting Ph.D. student in Remote Sensing and Photogrammetry

Co-supervisor: Tobias Bolch

**Wuhan University, Wuhan, China** 2018.09 - 2021.06

Master in Geodesy and Geomatics

Thesis Title: Global Modelling of High-Accuracy Tropospheric Key Parameters Based on ERA5 Data

Thesis advisor: Yibin Yao

GPA: 3.85/4.0

**Technical University of Munich, Munich, Germany** 2019.10 - 2020.06

Double-degree Master in Earth Oriented Space Science and Technology

GPA: 1.1/1.0

**Wuhan University, Wuhan, China** 2014.09 - 2018.06

Bachelor in Navigation Engineering

GPA: 3.88/4.0

### RESEARCH INTERESTS

**The Application of Geodetic and Remote Sensing Technologies in Monitoring Periglacial Landforms**

**Atmospheric Error Modeling and Correction in Geodetic Techniques**

**Machine/Deep Learning in Geoscience Applications**

### SELECTED PUBLICATIONS

1. **Zhangyu Sun**, Lin Liu, Chengyan Fan, Yan Hu, Francesca Baldacchino, Atanu Bhattacharya, Ella Wood, and Tobias Bolch (2025). Unveiling large-scale velocity characteristics of rock glaciers in the Tibet-Pamir-Karakoram region using InSAR. *International Journal of Applied Earth Observation and Geoinformation*, 142, 104733. <https://doi.org/10.1016/j.jag.2025.104733>.
2. **Zhangyu Sun**, Yan Hu, Adina Racoviteanu, Lin Liu, Stephan Harrison, Xiaowen Wang, Jiaxin Cai, Xin Guo, Yujun He, and Hailun Yuan (2024). TPRoGI: A comprehensive rock glacier inventory for the Tibetan Plateau using deep learning. *Earth System Science Data*, 16(12), 5703–5721. <https://doi.org/10.5194/essd-16-5703-2024>.
3. **Zhangyu Sun**, Bao Zhang, and Yibin Yao (2021). Improving the Estimation of Weighted Mean Temperature in China Using Machine Learning Methods. *Remote Sensing*, 13(5), 1016. <https://doi.org/10.3390/rs13051016>.

4. **Zhangyu Sun**, Bao Zhang, and Yibin Yao (2019). An ERA5-based model for estimating tropospheric delay and weighted mean temperature over China with improved spatiotemporal resolutions. *Earth and Space Science*, 6(10), 1926-1941. <https://doi.org/10.1029/2019EA000701>.
5. **Zhangyu Sun**, Bao Zhang, and Yibin Yao (2019). A global model for estimating tropospheric delay and weighted mean temperature developed with atmospheric reanalysis data from 1979 to 2017. *Remote Sensing*, 11(16), 1893. <https://doi.org/10.3390/rs11161893>.
6. Yibin Yao, **Zhangyu Sun**, and Chaoqian Xu (2018). Establishment and evaluation of a new meteorological observation-based grid model for estimating zenith wet delay in ground-based global navigation satellite system (GNSS). *Remote Sensing*, 10(11), 1718. <https://doi.org/10.3390/rs10111718>.
7. Yibin Yao, **Zhangyu Sun**, Chaoqian Xu, Liang Zhang, and Yangyang Wan (2018). Development and assessment of the atmospheric pressure vertical correction model with ERA-interim and radiosonde data. *Earth and Space Science*, 5(11), 777-789. <https://doi.org/10.1029/2018EA000448>.

## SELECTED CONFERENCES

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1. **Zhangyu Sun**, Lin Liu, Yan Hu, and Chengyan Fan (2024). Assessing rock glacier velocities on the Tibetan Plateau using satellite SAR interferometry, EGU General Assembly Conference, Vienna, Austria.
2. **Zhangyu Sun**, Yan Hu, Lin Liu, Adina Racoviteanu, and Stephan Harrison (2023). Mapping and inventorying rock glaciers on the Tibetan Plateau from Planet Basemaps using deep learning, EGU General Assembly Conference, Vienna, Austria.
3. **Zhangyu Sun**, Yan Hu, Lin Liu, Adina Racoviteanu, and Stephan Harrison (2022). Mapping Rock Glaciers on the Tibetan Plateau from Planet Basemaps Using Deep Learning, AGU Fall Meeting, Chicago, U.S.

## SELECTED HONORS AND AWARDS

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<b>Ernst Mach Grant</b> , weltweit, Austria	2023
<b>Hong Kong PhD Fellowship</b> , Hong Kong	2021
<b>National Graduate Scholarship of China</b> , China	2019
<b>Lei Jun Scholarship</b> , Wuhan University	2019
<b>Top Ten Academic Stars of Wuhan University, Top 20 Finalists</b> , Wuhan University	2019
<b>Lei Jun Scholarship</b> , Wuhan University	2017
<b>Yu Gang Song Xiao Scholarship</b> , Wuhan University	2016
<b>National Scholarship of China</b> , China	2015

## SKILLS

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**Technology:** GNSS, optical remote sensing, InSAR, QGIS, machine learning, deep learning

**Programming language:** Python, MATLAB, C++, C#, C, Shell

**Language:** Chinese (Mandarin, First language), English (Fluent)