Remote Sensing 文献清单：冰冻圈遥感方向

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Remote Sensing 文献清单：冰冻圈遥感方向。期刊名：Remote Sensing

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在全球气候变暖的背景下，冰川、积雪、海冰等冰冻圈要素正经历快速变化。遥感技术作为冰冻圈监测的重要手段，已被广泛应用于冰川面积与物质平衡估算、冰流速与跃动监测以及海冰范围制图等研究领域。本期文献清单精选15篇近期发表于 Remote Sensing
期刊的冰冻圈遥感监测相关成果，以期为相关领域的研究者提供参考与启发。

1. Accelerated Glacier Area Loss and Extinction of Small Glaciers in the Bhutanese Himalaya over the Past Five Decades

近五十年来不丹喜马拉雅地区冰川的加速消融以及小冰川的消失

https://www.mdpi.com/2072-4292/18/2/323

Thongley, T.; Tielidze, L.G.; Yang, W.; Gunn, A.; Mackintosh, A.N. Accelerated Glacier Area Loss and Extinction of Small Glaciers in the Bhutanese Himalaya over the Past Five Decades. Remote Sens. 2026, 18, 323.

2. Expanding Temporal Glacier Observations Through Machine Learning and Multispectral Imagery Datasets in the Canadian Arctic Archipelago: A Decadal Snowline Analysis (2013 – 2024)

利用机器学习和多光谱影像数据集扩展加拿大北极群岛的冰川时序观测：年代际雪线分析（2013 – 2024）

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3. A Continuous Cryosphere Index for Snow and Ice Reflectance

一种用于冰雪反射率的连续冰冻圈指数

https://www.mdpi.com/2072-4292/18/10/1505

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4. Glacier Boundary Extraction over the Tibetan Plateau Using a Double Random Forest Model with Multi-Temporal Sentinel-1/2 Data

基于多时相 Sentinel-1/2 数据和双随机森林模型的青藏高原冰川边界提取

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5. What Drives the Glacier Retreat, and How Do We See It? A Study of Measurement Methods and Environmental Drivers of Retreat in the Amundsenisen Glacial System, Svalbard

什么驱动了冰川退缩，我们又是如何观测它的？斯瓦尔巴群岛阿蒙森冰原冰川系统退缩测量方法与环境驱动因素研究

https://www.mdpi.com/2072-4292/18/17/2886

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6. Satellite Remote Sensing of a Melting Glacier Albedo: Examples from EnMAP and an Intercomparison with Other Satellite and Ground Measurements

消融冰川反照率的卫星遥感：以 EnMAP 为例以及与其他卫星和地面测量的对比分析

https://www.mdpi.com/2072-4292/18/17/2929

Kokhanovsky, A.; Segl, K.; Chen, N.; Li, W.; Feng, S.; Wehrl é , A.; Box, J.E.; Nielsen, R.B.; Fuchs, P.; Stamnes, K.; Bendix, J. Satellite Remote Sensing of a Melting Glacier Albedo: Examples from EnMAP and an Intercomparison with Other Satellite and Ground Measurements. Remote Sens. 2026, 18, 2929.

7. Planet4Stereo: A Photogrammetric Open-Source Pipeline for Generating Digital Elevation Models for Glacier Change Monitoring Using Low-Cost PlanetScope Satellite Data

Planet4Stereo：一种利用低成本 PlanetScope
卫星数据生成数字高程模型以进行冰川变化监测的摄影测量开源流程

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8. Long-Term Pan-Arctic Evaluation of a Sentinel-1 SAR Sea Ice Extent Product and Insights into Model Integration

Sentinel-1 SAR 全北极海冰范围产品的长期评估及对模型集成的启示

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9. Time-Series Surface Velocity and Backscattering Coefficients from Sentinel-1 SAR Images Document Glacier Seasonal Dynamics and Surges on the Puruogangri Ice Field in the Central Tibetan Plateau

基于Sentinel-1 SAR影像的地表速度与后向散射系数时间序列揭示了青藏高原中部普若岗日冰原的冰川季节动态与跃动

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10. Glacier Extraction from Cloudy Satellite Images Using a Multi-Task Generative Adversarial Network Leveraging Transformer-Based Backbones

基于Transformer的多任务生成对抗网络的多云卫星图像冰川提取

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11. Assessing the Consistency Among Three Mascon Solutions and COST-G-Based Grid Products for Characterizing Antarctic Ice Sheet Mass Change

评估三种 Mascon 解与基于 COST-G 的网格产品在表征南极冰盖质量变化中的一致性

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12. Using K-Means-Derived Pseudo-Labels and Machine Learning Classification on Sentinel-2 Imagery to Delineate Snow Cover Ratio and Snowline Altitude: A Case Study on White Glacier from 2019 to 2024

利用 K-Means 衍生的伪标签和 Sentinel-2
影像机器学习分类提取积雪覆盖率与雪线高度：以怀特冰川（2019-2024年）为例

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13. Integrating Satellite and Field Data for Glacier Melt Modeling in High-Mountain Asia: A Case Study on Passu Glacier

融合卫星与实地数据进行亚洲高山区冰川消融模拟：以帕苏冰川为例

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14. A Novel Method for Reducing Uncertainty in Subglacial Topography: Implications for Greenland Ice Sheet Volume and Stability

一种降低冰下地形不确定性的新方法：对格陵兰冰盖体积与稳定性的启示

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15. Elevation-Dependent Glacier Albedo Modelling Using Machine Learning and a Multi-Algorithm Satellite Approach in Svalbard

基于机器学习与多算法卫星技术的斯瓦尔巴群岛冰川反照率随海拔变化建模

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