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Dynamic Disturbance Processes in Permafrost Regions

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Message from the Guest Editors

Dynamic disturbances such as wildfire and permafrost degradation are restructuring the spatial and temporal distribution of snow, water, vegetation, soil carbon/nutrients, and energy dynamics, with implications for local to global feedbacks. The interdependence of these disturbances makes quantifying their impact challenging, yet paramount for improving our predictive capacity as climate change and disturbance regimes intensify.

In this Special Issue, we aim to advance knowledge of dynamic disturbance processes that impact high-latitude permafrost ecosystems. We welcome submissions on the application of remote sensing to a broad range of disturbances: (1) **Thermokarst** (vertical surface subsidence) **and thermoerosion** (lateral transport of sediments via ground ice melt), (2) **thermokarst lake dynamics**, (3) **coastal and fluvial erosion**, (4) **wildfire–ecosystem interactions**, (5) **permafrost vegetation interactions**, and (6) **anthropogenic disturbances**. We particularly encourage applications linking two interacting components that influence periglacial ecosystem dynamics (e.g., wildfire and vegetation; thermokarst and hydrology; climate and thermokarst).



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Special Issue



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