Remote Sensing of Arctic Tundra

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Message from the Guest Editors

Arctic tundra ecosystems are undergoing dramatic changes resulting from the inter-related dynamics of climate, sea-ice, snow cover, permafrost, and terrestrial disturbances (e.g., fire, thermokarst, landslides, and industrial and civil infrastructure). Changes in the tundra surface properties of vegetation, water (e.g., lakes and ponds), and soil are crucial for projecting feedbacks to climate, yet are challenging to capture in the field due to the remoteness of the locations and the need for relatively long-term monitoring. Remote sensing will continue to provide a valuable and insightful approach for examining the patterns and dynamics of arctic tundra surface characteristics in response to environmental factors.

We are pleased to announce a Special Issue of the journal Remote Sensing on “Remote Sensing of Arctic Tundra”. We solicit manuscripts that use the broad array of remote sensing platforms (i.e., handheld, drone, airborne, and satellite) and sensors (e.g., optical, microwave, radar, LiDAR), across spatial, temporal, and spectral resolutions and extents, to examine the patterns and dynamics of arctic tundra systems.