The Polar Regions has undergone significant changes in recent years, with the increasing temperature and the widespread shrinking cryosphere, mainly including sea ice, glacier, and ice sheet. Changes in the Polar Regions affect atmospheric and ocean circulations and have significant feedbacks on climate changes at regional and global scales. Accurate and timely information regarding changes of the Polar Regions is very crucial for climate change studies. Remote sensing provides synoptic views in space and time and offers the capacity for periodic monitoring the Polar Regions at large scale complementary to in situ measurements. The purpose of this Special Issue is to cover the most recent advances in applications and algorithms to process remotely sensed data for monitoring the Polar Regions, and to increase interdisciplinary interaction and collaboration among researchers working in Polar Remote Sensing.

The broad topics include (but are not limited to):
- Retrieval of sea ice parameters (concentration, type, thickness, drift)
- Dynamics and impacts of icebergs and ice shelves
- Mass loss, structure, and dynamic behavior of ice sheet
- Glacier and snow facies mapping and their changes through time
- Polar snow cover changes
- Physical and ecological processes of river/lake ice in polar regions
- Changing permafrost and its global effects
- Loss of land and changes in the environment, ecosystems, and human behavior of the Polar Regions
- Potential use of new satellite sensors and combination of sensors for Polar Regions monitoring
- Impacts of sea ice changes on navigation and marine operations

Schedule
August 1, 2021 Submission system opening
February 28, 2022 Submission system closing

Format
All submissions will be peer reviewed according to the IEEE Geoscience and Remote Sensing Society guidelines. Submitted articles should not have been published or be under review elsewhere. Submit your manuscript on http://mc.manuscriptcentral.com/jstars, using the Manuscript Central interface and select the “Polar Remote Sensing” special issue manuscript type. Prospective authors should consult the site https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9082768 for guidelines and information on paper submission. All submissions must be formatted using the IEEE standard format (double column, single spaced). Please visit http://www.ieee.org/publications_standards/publications/authors/author_templates.html to download a template for transactions. Please note that as of Jan. 1, 2020, IEEE J-STARS has become a fully open-access journal charging a flat publication fee $1,250 per paper.

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