Integrated Climate Indicators for Monitoring Seasonal Arctic and sub-Arctic Sea Ice Coverage Using a Satellite Climate Data Record

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Information on the Arctic sea ice coverage in terms of ice area and extent and on the timing of Arctic snow and ice melt onset, sea ice opening, retreat, advance, and closing is extremely important to understanding and monitoring seasonal Arctic sea ice changes.

Recent rapid Arctic sea ice depletion has posted both challenge and opportunity. Long-term spatial and temporal averages and variability of these climate indicators are beneficial to business strategic planning, climate monitoring, and regional risk mitigation. In this presentation, basic characteristics of temporal means and variability of Arctic and sub-Arctic sea ice climate indicators derived from a satellite passive microwave climate data record will be described.