



New Insights into Remote Sensing Techniques, Analysis and Modeling for the Observation of Ocean Waves and Sea Ice Monitoring

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Message from the Guest Editors

Ocean waves and sea ice are intimately connected. As ocean waves can affect the sea ice types, floes distribution and concentration, and thus the fluxes through the ocean-atmosphere interface, it is demanding to include waves-in-ice into the earth system of observation and modeling. The dramatic shrinking of the sea ice extent and volume allows winds to blow over longer fetches, thus developing higher and more energetic waves. Such waves favour the formation of grease and pancakes in the marginal ice zone and the fragmentation of ice floes in the depth of icefields, thereby contributing to the overall reduction of sea ice in the polar regions.

This Special Issue is aimed at gathering research works on all the aspects related to the measurement, observation, analysis methods of ocean waves and sea ice, also in conjunction with theoretical description, modeling and forecast in the polar, sub-polar and marginal seas. This can be achieved either by taking advantage of the available microwave, optical, acoustic data and imagery provided from above by space-, air-, ship-borne, UAV systems and from below by submarine and underwater vehicles.





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Message from the Editor-in-Chief

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