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# Ship Detection Using Polarimetric Radarsat 2 Data And

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Ship Detection From PolSAR Imagery Using the Complete ...  
Application of Polarimetric-SAR Decompositions on RADARSAT ...  
Ship Detection Using Compact Polarimetric SAR Based on the ...  
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At first, the PolSAR data are decomposed

in azimuth direction, range direction only

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RadarSat-SHIP DETECTION USING POLARIMETRIC RADARSAT-2 DATA AND ...By using polarimetric RadarSat2 data over various scenes, experimental results demonstrate that, the proposed method can efficiently enhance contrast between targets and background clutters in terms of ship detection. Ship detection using polarimetric RadarSat-2 data and ...In this work, we are interested in improving ships detection using polarimetric Synthetic Aperture Radar (SAR). To develop the appropriate method, different processing techniques are applied on Pol-SAR images such as fusion and polarimetric decompositions and we use adaptive threshold detectors to assess the performances of the processing techniques. Application of Polarimetric-SAR Decompositions on RADARSAT ...Polarimetric information is investigated for ship detection and characterization at operational satellite synthetic aperture radar (SAR) incidence angles ( $20^{\circ}$ - $60^{\circ}$ ). It is shown that among the conventional single-channel polarizations (HH, VV, or HV), HV provides the best ship-sea contrast at incidence angles smaller than  $50^{\circ}$ . Ship detection and characterization using polarimetric SAR Read Book Ship Detection Using Polarimetric Radarsat 2 Data And specifically acquire guide by on-line. This... Ship Detection Using Polarimetric Radarsat 2 Data And The added value of polarimetric RS2 information for ship detection is demonstrated using wide swath (50 km) polarimetric RADARSAT-2 data collected at  $29^{\circ}$  and  $40^{\circ}$  incidence angle over Ship Detection Using Polarimetric Radarsat 2 Data And Optimization of the Degree of Polarization for Enhanced Ship Detection Using Polarimetric RADARSAT-2. Abstract: The scattered wave is represented in terms of two independent

and rotation invariant parameters: the degree of polarization (DoP) and the total scattered intensity  $R_0$ . The scattered wave polarization signature is introduced as a convenient graphical representation of the variations of the two scattered wave observable parameters as a function of the transmitting antenna polarization. Optimization of the Degree of Polarization for Enhanced ...The most straightforward approaches, such as the polarimetric whitening filter and SPAN detectors,, directly used the three channels of polarimetric SAR (PolSAR) intensity data for ship detection. Ship Detection From PolSAR Imagery Using the Complete ...basis on which to build a complete ship detection capability. The detection algorithms can be applied to various types of polarimetric and single-channel systems such as RADARSAT-1, ENVISAT, ASAR and RADARSAT-2. However, the main objective is to prepare for the operational use of RADARSAT-2, which will have many polarimetric modes, including quad Likelihood Ratio Test Polarimetric SAR Ship Detection ...Abstract: Monitoring and detection of ships and oil spills using synthetic aperture radar (SAR) have received a considerable attention over the past few years, notably due to the wide area coverage and day and night all-weather capabilities of SAR systems. Among different polarimetric SAR modes, dual-pol SAR data are widely used for monitoring large ocean and coastal areas. Ship and Oil-Spill Detection Using the Degree of ...In this context, we consider data from the Environment Canada (EC) CV-580 polarimetric SAR system to quantify the improvement in ship- detection performance that can be achieved by using a polarimetric SAR

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Rennes 1, IETR, SAPHIR team, France <sup>2</sup>University of Tromsø, Department of Physics and Technology, Norway Ship detection using polarimetric RadarSat-2 data and ... Recently, the polarimetric notch filter (PNF) has been demonstrated to be effective for ship detection in both full-polarization and compact polarization-mode SAR images. Ship Detection Using Compact Polarimetric SAR Based on the ... Ship detection is a key topic for the surveillance of maritime areas largely due to the capability to acquire valuable images independent of solar illumination and (to some extent) weather conditions. The studies on POLSAR target detection mainly exploit the polarimetric statistical and scattering information. SHIP DETECTION WITH RADARSAT-2 QUAD-POL SAR DATA USING A ... A SAR system with a compact polarimetric (CP) SAR architecture constitutes a significant new advancement in the field of Earth observation using radar remote sensing. A CP SAR architecture transmits circular polarization and receives two orthogonal, mutually-coherent linear polarizations. Remote Sensing | Special Issue : Compact Polarimetric SAR Quad-polarimetric SAR data has been used successfully for ship detection. However, narrow swath of quad-polarimetric SAR promotes the urgent need to explore ship detectors for dual-polarimetric systems. Compact polarimetric (CP) SAR has high potential of providing more information than linear dual-polarimetric SAR. sition approach for ship detection is proposed in this paper. At first, the POLSAR data are decomposed in azimuth direction, range direction only or in both directions. Then a novel statistical descriptor called polarimetric TF coherence indicator, is applied to detect

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