

论文

双站SAR图像的极化分析

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摘要

该文对双站SAR(BISAR)模拟图像不同地物的极化特征分析,发现传统单站极化特征参数()在BISAR图像上不再能有效地表现地物散射的极化特征。由此,提出了统一双站极化基变换,重新定义了极化特征参数,使其保持原有的分离取向关联等优点。经统一双站极化基变换后,不同地物散射的极化特征更明显,重新定义的能反应不同散射机制,提供了BISAR图像解译和地表分类的初步手段。

关键词 [双站极化SAR](#) [模拟双站SAR图像](#) [极化特征分析](#)

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Bistatic SAR Polarimetric Analysis

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Abstract

Making use of bistatic SAR image simulation, polarimetric characteristics of BISAR image are studied. It is found that some conventional polarimetric parameters, such as Cloude's, for interpretation of monostatic SAR image lose their effectiveness for bistatic case. A transform of the unified bistatic polar bases for BISAR image is presented, and the polarimetric parameters, i.e., are redefined to preserve their merits of orientation independence. Image simulations show that the polarimetric characteristics of different terrain surfaces are well described using these unified bistatic polar bases, and newly redefined are also applicable to interpret different scattering mechanism. It provides a new way for bistatic image interpretation and information retrievals.

Key words [Bistatic polarimetry SAR](#) [Bistatic SAR image simulateion](#) [Polarimetric characteristics analysis](#)

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