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A TOPOLOGY STRUCTURE BASED SAR GROUP TARGETS RECOGNITION ALGORITHM

Abstract

The paper proposed a formation topology structure based SAR group target recognition algorithm. By taking advantage of the topology structure invariance of relative geometric position of the group targets, recognize and locate the corner retro-reflector array, clustered artifical facilities and other group targets in SAR images. The proposed algorithm effectively reduces the number of false alarms in SAR image with ground clutter, and increases the recognition probability. And the algorithm can be very useful in Radar test. Tests showed the good qualities of this algorithm, such as fast speed, high rate of recognition with the targets based on complicated background on earth.