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论文

SAR图像中目标的检测和识别研究进展

杨桄[1],陈克雄[1],周脉鱼[1],徐忠林[1],王宗明[2]

1. 空军航空大学特种专业系, 长春 130022；2.中科院东北地理与农业生态研究所，长春 130012

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摘要　SAR图像以其独有的全天时、全天候观测能力、形态探测能力和对地表的穿透性,在地学应用中比光学遥感更具优势.本文结合SAR图像检测和识别应用技术的发展过程，综述了SAR图像在噪声抑制、线状特征和纹理特征提取、图像分割和目标检测等方面的研究进展；介绍SAR图像检测和识别的最新研究情况；最后分析当今国内外SAR图像检测和识别所面临的问题，并对未来发展进行展望.

关键词　合成孔径雷达图像　图像去噪　舰船检测　图像分割　目标识别

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Study evolution of detection and recognition on target in SAR image

YANG Guang1, CHEN Ke-xiong1, ZHOU Mai-yu1, XU Zhong-lin1, WANG Zong-ming2

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Abstract SAR remote-sensing instruments with the capabilities of all weather and all day/night, penetration, and terrain detection, provide unique geological environmental information, quite different from, yet complementary to passive systems such as visible remote sensing. Automatic Target Recognition in SAR imagery becomes popular in recent years. The typical Automatic Target Recognition system consists of three stages: detection, discrimination and classification. Detection, whose role is to find regions in SAR imagery that contains potential targets, will inevitably produce false alarms. Combining detection and identify of SAR imagery this paper summarized study evolution of SAR image on demising, characters of line and texture extraction, image segmentation and target detection; Introduced up to date study progress; ultimately analyzed program about detection and identify of SAR image in inland and overseas thing and prospected development in future.

Key words SAR; image denoising; marine detection; image segmentation; target recognition

通讯作者:
杨桄 yg2599@sina.com
作者个人主页: 杨桄[1];陈克雄[1];周脉鱼[1];徐忠林[1];王宗明[2]