remote sensing

IMPACT FACTOR 4.2

CITESCORE 8.3

Special Issue Reprint

SAR-Based Signal Processing and Target Recognition

www.mdpi.com/books/reprint/7974

Edited by
Lan Du
Gang Xu
Haipeng Wang

ISBN 978-3-0365-8636-6 (Hardback)
ISBN 978-3-0365-8637-3 (PDF)

Synthetic aperture radar (SAR) is a class of significantly important remote sensors that work effectively during all weather conditions and all times of day. SAR has the capability to provide very-high-resolution images and multi-dimensional data during limited periods of time, enhancing the spatial–time resolution of observations. In recent years, SAR technology has been developing towards the trend of multi-dimensional imaging and fine-grained image recognition. Meanwhile, the paradigms of SAR imaging and information perception have also been greatly changed to multi-mode, multi-dimensional and intelligent processing strategies. Recently, machine learning and deep learning methods have been applied to SAR imaging and target recolonization to drive various algorithms, which can be classified as model-based and data-learning techniques. Compared to model-based approaches, learning algorithms are more adaptive and show superior performance. However, when limited to small data sets, complex scenes, etc., these learning algorithms may suffer from bad generalization capability and low feature robustness. This Special Issue introduces some newly advanced signal processing and target recognition technologies in SAR, including some new theories, models, concepts and architecture designs for multi-mode/multi-dimensional SAR imaging and parameter inversion, sparse techniques of SAR and ISAR imaging, SAR interference and anti-interference, SAR/InSAR image enhancement, SAR target detection and recognition, SAR image classification and interpretation.

MDPI

MDPI Books

Publishing Open Access Books & Series

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.

Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.

Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.

High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.

High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).

Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

MDPI AG
Grosspeteranlage 5
4052 Basel
Switzerland
Tel: +41 61 683 77 34
www.mdpi.com/books
books@mdpi.com