



Special Issue Reprint

## **Remote Sensing of Land Surface Phenology**

www.mdpi.com/books/reprint/6113

Edited by Xuanlong Ma Jiaxin Jin Xiaolin Zhu Yuke Zhou Qiaoyun Xie



ISBN 978-3-0365-5325-2 (Hardback) ISBN 978-3-0365-5326-9 (PDF)

Land surface phenology (LSP) uses remote sensing to monitor seasonal dynamics in vegetated land surfaces and retrieve phenological metrics (transition dates, rate of change, annual integrals, etc.). LSP has developed rapidly in the last few decades. Both regional and global LSP products have been routinely generated and play prominent roles in modeling crop yield, ecological surveillance, identifying invasive species, modeling the terrestrial biosphere, and assessing impacts on urban and natural ecosystems. Recent advances in field and spaceborne sensor technologies, as well as data fusion techniques, have enabled novel LSP retrieval algorithms that refine retrievals at even higher spatiotemporal resolutions, providing new insights into ecosystem dynamics. Meanwhile, rigorous assessment of the uncertainties in LSP retrievals is ongoing, and efforts to reduce these uncertainties represent an active research area. Open source software and hardware are in development, and have greatly facilitated the use of LSP metrics by scientists outside the remote sensing community. This reprint covers the latest developments in sensor technologies, LSP retrieval algorithms and validation strategies, and the use of LSP products in a variety of fields. It aims to summarize the ongoing diverse LSP developments and boost discussions on future research prospects.



Order Your Print Copy You can order print copies at www.mdpi.com/books/reprint/6113

# MDPINBOOKS 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.



ᆔ

#### 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

