



Special Issue Reprint

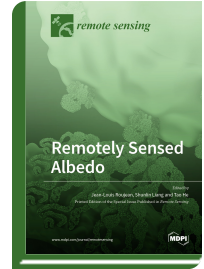
Remotely Sensed Albedo

www.mdpi.com/books/reprint/3421

Edited by
Shunlin Liang
Jean-Louis Roujean
Tao He

ISBN 978-3-03943-941-6 (Hardback)

ISBN 978-3-03943-942-3 (PDF)



Albedo is a known and documented phenomenon, defined as the reflectivity of a surface, i.e., the ratio of reflected light energy to incident light energy. It is a dimensionless quantity, used in particular in agro-forestry, urban environment, cryosphere and geology. It is an Essential Climate Variable (ECV), deemed extremely meaningful to compute the earth heat balance. The albedo of natural surfaces varies largely, especially in the visible, with the lowest values found for water bodies and dense vegetation canopies and the highest values for desert and snow. It also changes with the angular distribution and spectral composition of the incident radiation and with the surface moisture. Satellite observations allow consistent measuring of the surface albedo at continental scale over a short period of time. Long-term series of surface albedo are good indicators of climate change, especially over glaciers and polar caps. On the other hand, the albedo of bare soil provides a good diagnostic of their degradation. The reliability of satellite albedo is verified against ground-based radiometers and UAV, which also serves to calibrate the instruments embarked on space-borne observing systems and check the quality of the atmospheric correction.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/3421

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.