



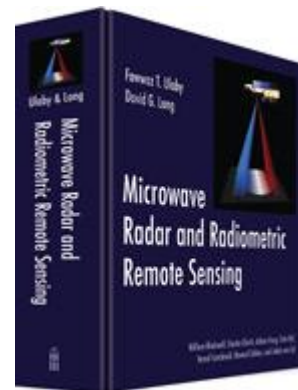
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Advance Book Information

<i>Title:</i>	Microwave Radar and Radiometric Remote Sensing
<i>Authors:</i>	Fawwaz T. Ulaby and David G. Long
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Book Information

A successor to the classic Artech House Microwave Remote Sensing series, this comprehensive and up-to-date resource previously published by University of Michigan Press provides you with theoretical models, system design and operation, and geoscientific applications of active and passive microwave remote sensing systems. To facilitate understanding and use of the material, the book includes 50 MATLAB-based computer codes and the book's website (<http://mrs.eecs.umich.edu/>) includes interactive modules based on theoretical and empirical models.



Market

Microwave and remote sensing engineers, researchers, and students.

Contents

Electromagnetic Wave Propagation; Remote-Sensing Antennas; Microwave Dielectric Properties of Natural Earth Materials; Radar Scattering; Microwave Radiometry and Radiative Transfer; Microwave Radiometric Systems; Microwave Interaction with Atmospheric Constituents; Radiometric Sounding of the Atmosphere; Surface-Scattering Models and Land Observations; Volume-Scattering Models and Land Observations; Emission Models and Land Observations; Radar Measurements and Scatterometers; Real- and Synthetic-Aperture Side-Looking Airborne Radar; Interferometric SAR; Radar Remote Sensing of the Ocean; Spaceborne Altimetry; Radiometric Remote Sensing of the Ocean.

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Radiometric Microwave Indices for Remote Sensing of Land Surfaces. Simonetta Paloscia * , Paolo Pampaloni and Emanuele Santi. Institute of Applied Physics "Nello Carrara" (IFAC-CNR), via Madonna del Piano, 10, 50019 Firenze, Italy.Â Keywords: microwave radiometry; microwave indices; soil moisture content; vegetation biomass; snow cover characteristics microwave radiometry; microwave indices; soil moisture content; vegetation biomass; snow cover characteristics. The physical basis for this remote sensing technique is the generation of capillary waves on the ocean surface by the friction velocity of the wind. SCAMS. Scanning Microwave Spectrometer on NASA Nimbus-6.Â Determines rainfall in the tropics and subtropics by using a precipitation radar and microwave radiometer as well as optical instruments. TRMM-PR. Precipitation Radar on NASA/JAXA Joint Tropical Rainfall Measurement Mission (TRMM). Part I: Advanced microwave precipitation radiometer and polarimetric radar measurements and models. Authors. Authors and affiliations.Â Jameson, A. R., 1991: The effect of drop size distribution variability on radiometric estimates of rainfall rates for frequencies from 3 to 10 GHz.J. Appl. Meteor.,30, 1025â€"1033.Google Scholar. Kattawar, G. W., Hitzfelder, S. J., Binstock, J., 1973: An explicit form of the Mie phase matrix for multiple scattering calculations in the l, Q, U, V representation.J. Atmos. Sci.,30, 289â€"295.Google Scholar. Kummerow, C., Hakkarinen, I., Pierce, H. F., Weinman, J. A., 1991: Determination of precipitation profiles from airborne passive microwave radiometric measurements.J. Atmos. Oceanic Technol.,8, 148â€"15