Spatial Spectra of Atmospheric Convective Cells from Radar Images of Ocean Surface p. 80

Airborne Optical Measurements of Wind-Wave Spectral Perturbations Induced by Ocean Internal Waves p. 81

Multisensor, Multifrequency, and Multipolarization SAR Imagery of Oceanic Upwelling Off the Coast of England: A Case Study of Spacecraft and Aircraft Imagery p. 84

Advanced Airborne Multispectral MM-Wave Imaging Technique for Ocean Atmosphere Studies p. 85

Backscatter Optical and Microwave Cross Sections for Surfaces Characterized by Pearson-Moskowitz Spectral Density Functions - Full Wave Approach p. 88

Microwave Doppler-Radar System of Sea Surface and Atmospheric Formations Remote Sensing p. 91

Polarimetric Radar Signatures of Oil Slicks for Measuring Slick Thickness p. 94

Intercomparison and Almagamation of Interferometer and Raman Lidar Data p. 95

A Composite Water Vapor Observing System for Atmospheric Science Applications p. 98


A Water Vapor Profiling Technique Using Combined Simple DIAL and Columnar Microwave Measurements p. 102

Raman Lidar Profiling of Atmospheric Water Vapor p. 106

Analysis of Atmospheric Water Vapor Measurements Using A Raman Lidar p. 109

Comparison of Water Vapor Measurements by a Microwave Radiometer and Raman Lidar p. 112

An Algorithm for Improving the Retrieval of Cloud Liquid Water and Water Vapor Using Effective Radiating Temperature of Clouds p. 115

Early-Orbit Performance of the Special Sensor Microwave Water-Vapor Profiler (SSM/T-2 B4) and Special Sensor Microwave Air-Temperature Sounder (SSM/T-1 B3) p. 118

The TOVS Pathfinder Path A Data Set p. 119

Combined Microwave and Optical Remote Sensing of Clouds: A Review p. 123

Combined High Frequency Microwave, Visible and Infrared and Lidar Sensing of Tropical Clouds from the ER-2 High Altitude Aircraft p. 126

Cloud Parameters from Infrared Lidar Used Singly and in Combination with Radar and Infrared Radiometer p. 129

Remote Sensing of Tropospheric Clouds with a Dual Polarization Radar p. 132

Initial Results from a Volume Scanning Three Wavelength Polarization Lidar p. 135

Subceiling Probing of Clouds Using Pairs of AVHRR Images p. 138

Rotational Raman Lidar for Temperature Measurements in the Troposphere p. 141

Combination of Laser Cloud Cellometer, Sonic Anemometer, and cw-Doppler Lidar for Boundary Layer Measurements p. 145

Doppler Lidar Measurements of Wind and Turbulence in the Marine Boundary Layer p. 148

Prospects for Laser Remote Sensing of Refractive Turbulence p. 151


High Sensitive Detection of Trace Gases by Dual Frequency Modulation p. 157