On the relationship between Active and Passive observations of vegetation: model and experiments

1. Extended Abstract

Theoretical results of the medium under study, that model developed at the University of Rome Tor Vergata is based on the bistatic scattering coefficient. Profiting from this formulation, in this work some simulations of emissivity and backscattering are compared with experimental data collected by means of different observation systems over vegetated soil: Simulations with a unified model and experiments aiming at exploiting the bistatic scattering coefficient. The sensitivity of emissivity decreases monotonously with the vegetation amount, while the sensitivity of the backscattering coefficient does not show a definite trend because of the double bounce effect. The absolute value at horizontal polarization of the medium under study, that model developed at the University of Rome Tor Vergata is related to soil moisture and optical depth retrieved by satellite radiometers.

2. References


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