

PASSIVE MICROWAVE SOIL MOISTURE EVALUATIONS BY GROUND BASED MEASUREMENTS IN KOREA

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ABSTRACT:

Passive microwave sensors have many advantages including the ability to directly measurement soil moisture at large spatial scales regardless of weather conditions or time of day. However, microwave-sensed soil moisture's inevitable limitation is that it cannot describe hydrology at the watershed because its retrieved soil moisture scale is too large. Thus, microwave-sensed soil moisture requires validation. Even if there have been great developments for microwave-sensed soil moisture with validation efforts using ground based measurements and land surface models, the validations of the remotely sensed soil moisture in Korea are very limited. This study validates two Advanced Microwave Scanning Radiometer E (AMSR-E) soil moisture productions with ground based measurements at Korean monitoring network sites. This type of estimation may provide the utility of the AMSR-E soil moisture products as an alternative of the ground based measurements and improve soil moisture retrieval algorithms.

TOPIC: Remote sensing applications

ALTERNATIVE TOPIC: Microwave remote sensing