



## **Validation of satellite remote-sensing precipitation: A hydrologic perspective**

W.F. Krajewski and G.J. Ciach

IHR-Hydrosience & Engineering, Univ. of Iowa, Iowa City, IA 52242, USA

Validation of space-based precipitation products is a complicated and not a well-defined problem. The scope, approaches, and many details depend on one's objectives and/or application of the products. The authors discuss the validation from the hydrologic and water resources application perspective. Even such focused discussion cannot be comprehensive as there are many possible uses of the data. The authors discuss the requirements for uncertainty quantification of space-based rainfall maps. Unlike precipitation aloft, precipitation of interest to hydrology i.e. that reaching to ground, can be measured or estimated accurately. This implies that any meaningful validation framework should have an empirical component. The authors also discuss a hydrologic framework for determination of proper time-space scales regarding utility of space-based products from flood forecasting perspective. They illustrate the discussion with several examples.