Passive-microwave precipitation retrieval from satellite using the Cloud Dynamics and Radiation Database (CDRD) approach in conjunction with a new European CDRD database

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In a related presentation in this Session (Casella et al.), we describe the main design features of the Cloud Dynamics and Radiation Database (CDRD) approach to precipitation retrieval from passive-microwave (MW) satellite measurements, and then illustrate the microphysical-radiative characteristics of a new CDRD database for the European area.

In this presentation, we will discuss the results of the application of our CDRD algorithm in conjunction with the European CDRD database to a series of heavy-precipitation case studies over the Italian peninsula, that have been considered within the European FLASH project. In addition, we will compare these retrievals with the corresponding ones that are obtained by means of a "standard" Bayesian retrieval based on a Cloud Radiation Database (CRD) approach.