Precipitation retrieval from satellites over Africa

C. Simmer, M. Diederich, A. Bozoglu and A. Bozoglu
Meteorological Institute, University Bonn (csimmer@uni-bonn.de)

Over many areas of the African continent precipitation retrieval from satellites is often the only means to gather information about this crucially important parameter. A range of methods based on different satellites and different sensor combinations have been applied and compared to surface observations over Benin, Nigeria, and South Africa. The retrievals are based on microwave sensors on different polar orbiting satellites alone and on combinations of microwave observations with infrared observations from geostationary satellites using histogram matching and morphing separately and in combination. The satellite observations are used to qualify the surface observations while the latter are used to detect and correct systematic errors in the retrievals.