Precipitation Retrieved from FY-3B Microwave Radiation Imager

YOU Ran1,2, Xianqi Li3,4, Lu Naimeng3,4, Hu Yang5 and Hong Ou1,2
1) National Satellite Meteorological Center, China Meteorological Administration, Beijing, China
2) Key Laboratory of Radiometric Calibration and Validation for Environmental Satellites, China Meteorological Administration (LRCVE/SMA), Beijing 100081, China
3) Anhui Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, Hefei 230031

1. Sensor and data Introduction

FY-3 is a new generation of low-orbit meteorological satellites in China. The Microwave Temperature Sounder, the Microwave Humidity Sounder and the Microwave Radiation Imager were flown on FY-3 in China since May 2009. These microwave data may be used to retrieve the vertical structures of atmospheric temperature and humidity, cloud parameters, rainfall and the surface hydrometeological parameters etc.

2. Comparison with AMSR-E retrieved precipitation: TYPHOON Sangda over ocean, 05/27/2011

3. Comparison with AMSR-E retrieved precipitation: rainstorm in Guangzhou over land (05/12/2011)

4. Comparison with TMI retrieved precipitation: rainstorm in Guangzhou over land

5. Comparison with surface rain gauge: rainstorm in Guangzhou over land (05/12/2011)