Upper Yangtze River Scientific Data Center

**Daily Scale Soil Moisture Data Set of the Yangtze River in China Based on the MWRI Data of FY-3B Microwave Imager of Fengyun Satellite (2010-2019)**

1、Description

This data set is a global daily scale surface soil moisture data set covering 10 years (2010-2019), with a resolution of 36 km, using the EASE-Glid2 projection coordinate system, and the data unit is m3/m3. The data set uses the soil moisture neural network inversion algorithm developed by Yao et al. (20172021) to transfer the advantages of SMAP to FY-3B/MWRI, and uses the artificial neural network method to train SMAP standard soil moisture products, With the bright temperature of FY-3B/MWRI as the input, the long-term soil moisture data will be output finally. The precision of soil moisture is close to SMAP, reaching about 5%. (Verification accuracy of 14 dense observation stations worldwide).

2、Keywords

Theme：Soil,Soil moisture,microwave remote sensing,Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface  
Places：Upper Yangtze River  
Time：2010-2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：9462.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：36.0 | - |
| west：90.0 | - | east：112.0 |
| - | south：24.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

SHI Jiancheng, LU Hui, Zhao Tianjie, YAO Panpan, WU Shengli . Daily Scale Soil Moisture Data Set of the Yangtze River in China Based on the MWRI Data of FY-3B Microwave Imager of Fengyun Satellite (2010-2019). Upper Yangtze River Scientific Data Center, 2022

References to articles:

姚盼盼, 卢麾, 赵天杰, 武胜利, 施建成. (2021). 基于风云卫星FY-3B微波成像仪MWRI数据的全球日尺度土壤水分数据集（2010-2019）. 国家青藏高原科学数据中心, DOI: 10.11888/Terre.tpdc.271954. CSTR: 18406.11.Terre.tpdc.271954.

7、Supporting project information

8、Data resource provider

name: SHI Jiancheng  
unit: Institute of Remote Sensing Applications Chinese Academy of Sciences  
email: shi@icess.ucsb.edu  
  
name: Zhao Tianjie  
unit: Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences  
email: zhaotj@radi.ac.cn  
  
name: YAO Panpan  
unit: Tsinghua University  
email: yaopp@radi.ac.cn  
  
name: LU Hui  
unit: Tsinghua University  
email: luhui@tsinghua.edu.cn  
  
name: WU Shengli   
unit: National Satellite Meteorological Center  
email: yaopp@radi.ac.cn