# DIAS_Satellite_GPM_GSMaP dataset

# 1. IDENTIFICATION INFORMATION

| | |
|---|---|
| Name | DIAS_Satellite_GPM_GSMaP dataset |
| DOI | doi:10.20783/DIAS.281 [https://doi.org/10.20783/DIAS.281] |
| Metadata Identifier | DIAS_Satellite_GPM_GSMaP20230727074655-DIAS20221121113753-en |

# 2. CONTACT

## 2.1 CONTACT on DATASET

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## 2.2 CONTACT on PROJECT

### 2.2.1 Data Integration and Analysis System

| | |
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# 3. DOCUMENT AUTHOR

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# 4. DATASET CREATOR

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| Organization | Japan Aerospace Exploration Agency |
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# 5. DATE OF THIS DOCUMENT

2023-07-27

# 6. DATE OF DATASET

creation : 2016-01-04

# 7. DATASET OVERVIEW

## 7.1 Abstract

GSMaP product produces global precipitation distribution with high temporal

and spatial resolution. The technique uses the Kalman filter to compute the estimates of the current surface rain fall rates at each 0.1 degree pixel of the infrared brightness temperature by the GEO-IR satellites. The filter predict the precipitation rate from the microwave radiometer and its morphed product obtained in a similar way as the Joyce et al. (2004), and then refine the prediction based on the relationship between the IR brightness temperature and surface rainfall rate. In No.3 DVD product, the backward process is introduced to produce the global precipitation map as is the same in No.2. The rain rates from the passive microwave radiometers are generated by Aonashi (2000).

See Ushio et al. (2009) for detail.

■Resolution

0.1 deg

■Product Area

Global(N60-S60)

## 7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

## 7.3 Temporal Extent

| | |
|---|---|
| Begin Date | 2014-03-01 |
| End Date | 2014-12-31 |

## 7.4 Geographic Bounding Box

| | |
|---|---|
| North bound latitude | 60 |
| West bound longitude | -180 |
| Eastbound longitude | 180 |
| South bound latitude | -60 |

## 7.5 Grid

| Dimension Name | Dimension Size (slice number of the dimension) | Resolution Unit |
|---|---|---|
| column | 3600 | 0.1 (deg) |
| row | 1200 | 0.1 (deg) |

## 7.6 Geographic Description

## 7.7 Keywords

### 7.7.1 Keywords on Dataset

| Keyword Type | Keyword | Keyword thesaurus Name |
|---|---|---|
| theme | Atmosphere > Precipitation > Precipitation Rate | GCMD_science |

### 7.7.2 Keywords on Project

#### 7.7.2.1 Data Integration and Analysis System

| Keyword Type | Keyword | Keyword thesaurus Name |
|---|---|---|
| theme | DIAS > Data Integration and Analysis System | No_Dictionary |

## 7.8 Online Resource

JAXA/EORC GSMaP Web : http://sharaku.eorc.jaxa.jp/GSMaP/index.htm

File download from the DIAS : https://data.diasjp.net/dl/storages/filelist/dataset:281

## 7.9 Data Environmental Information

## 7.10 Distribution Information

| name | version | specification |
|---|---|---|

# 8. DATA PROCESSING

# 9. DATA REMARKS

# 10. DATA POLICY

## 10.1 Data Policy by the Data Provider

## 10.2 Data Policy by the Project

### 10.2.1 Data Integration and Analysis System

If data provider does not have data policy, DIAS Terms of Service (https://diasjp.net/en/terms/) and DIAS Privacy Policy (https://diasjp.net/en/privacy/) apply.

If there is a conflict between DIAS Terms of Service and data provider's policy, the data provider's policy shall prevail.

# 11. LICENSE

# 12. DATA SOURCE ACKNOWLEDGEMENT

## 12.1 Acknowledge the Data Provider

## 12.2 Acknowledge the Project

### 12.2.1 Data Integration and Analysis System

If you plan to use this dataset for a conference presentation, paper, journal article, or report etc., please include acknowledgments referred to following examples. If the data provider describes examples of acknowledgments, include them as well.

" In this study, [Name of Dataset] provided by [Name of Data Provider] was utilized. This dataset was also collected and provided under the Data Integration and Analysis System (DIAS), which was developed and operated by a project supported by the Ministry of Education, Culture, Sports, Science and Technology. "

# 13. REFERENCES