A Big Earth Data Platform for Three Poles

**Prediction data of sea ice density and sea ice coverage in the Arctic (July September 2021)**

1、Description

The data is the result of the prediction of Arctic sea ice density and sea ice coverage by the climate system model FGOALS independently developed by the project members. The correct selection of assimilation technology is an important factor for Arctic sea ice prediction. In the sea ice data assimilation technology, the singular value evolutionary interpolation Kalman filter (seik) is a relatively early but still commonly used filtering algorithm. However, due to the calculation of error covariance between all grid points, there is a false teleconnection error. Therefore, it is considered to develop a local filtering method to assimilate sea ice density and sea ice thickness. In the climate system model FGOALS, the project will initialize and process the sea ice thickness data retrieved by the European Space Agency (ESA) cryosat-2 and soil moisture and ocean salinity (SMOs) satellite remote sensing.

2、Keywords

Theme：Sea ice thickness,Sea Ice,Sea ice concentration
Discipline：Cryosphere
Places：Arctic
Time：July September 2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：73824.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：89.0 | - |
| west：-180.0 | - | east：180.0 |
| - | south：50.0 | - |

5、Time frame:2021-06-30 16:00:00+00:00--2021-09-30 03:59:59+00:00

6、Reference method

References to data:

SONG Mirong . Prediction data of sea ice density and sea ice coverage in the Arctic (July September 2021). A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2727882022

References to articles:

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

name: SONG Mirong
unit: The Institute of Atmospheric Physics， Chinese Academy of Sciences
email: songmirong@163.com