ATHENA dataset

1. IDENTIFICATION INFORMATION

Name	ATHENA dataset
Edition	1
Abbreviation	ATHENA
Metadata Identifier	ATHENA20230727071143-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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5. DATE OF THIS DOCUMENT

2023-07-27

6. DATE OF DATASET

publication : 2014-08-27

7. DATASET OVERVIEW

7.1 Abstract

The efficacy of using high spatial resolution in global climate models to improve their

fidelity and acuity has been tested in an international collaboration called Project Athena. Inspired by the World Modeling Summit of 2008, Project Athena was made possible by the availability of dedicated high- -end computing resources provided by the National Science Foundation from October 2009 through March 2010. Research results demonstrate the sensitivity of climate simulations to spatial resolution and the representation of sub- -grid- - scale processes, suggesting a minimum resolution is required to simulate certain phenomena. Project Athena serves as a pilot project to demonstrate that an effective international collaboration can be formed to take advantage of dedicated computing resources. The outcomes of the project, while still unfolding, have a number of implications for the future of climate modeling and prediction.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

geoscientificInformation

7.3 Temporal Extent

Begin Date	1960-01-01
End Date	2117-12-31

Temporal Characteristics	6hourly

7.4 Geographic Bounding Box

North bound latitude	90
West bound longitude	-180
Eastbound longitude	180
South bound latitude	-90

7.5 Grid

Dimension Name	Dimension Size (slice number of the dimension)	Resolution Unit
		()
		()
		()

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
discipline	Atmosphere hindcast amip timeslice	No_Dictionary

7.7.2 Keywords on Project

7.7.2.1 Data Integration and Analysis System

Keyword Type	Keyword	Keyword thesaurus Name
theme	DIAS &gt; Data Integration and Analysis System	No_Dictionary

7.8 Online Resource

Data download from DIAS : https://data.diasjp.net/dl/storages/filelist/dataset:225

7.9 Data Environmental Information

7.10 Distribution Information

name	version	specification
gribl, netcdf4, binary	gribl, netcdf4, binary	

8. DATA PROCESSING

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

Limited to non-commercial use

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

These datasets were obtained in the 2009- -2010 Athena Project, a computationally intensive project that was carried out using the Athena supercomputer at the University of Tennessee's National Institute for Computational Sciences (NICS), under the auspices of the National Science Foundation (NSF).

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

Kinter III, J. L., B. Cash, D. Achuthavarier, J. Adams, E. Altshuler, P. Dirmeyer, B. Doty, B. Huang, L.

Marx, J. Manganello, C. Stan, T. Wakefield, E. Jin, T. Palmer, M. Hamrud, T. Jung, M. Miller, P. Towers, N. Wedi, M. Satoh, H. Tomita, C. Kodama, T. Nasuno, K. Oouchi, Y. Yamada, H. Taniguchi, P. Andrews, T. Baer, M. Ezell, C. Halloy, D. John, B. Loftis, R. Mohr, and K. Wong, 2013: Revolutionizing Climate Modeling Project Athena: A Multi-Institutional, International Collaboration. Bull. Amer. Meteor. Soc., 94, 231-245.