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Atmospheric Model Data



Towards increasing the reusability of atmospheric model data: adapting metadata standards and introducing quality criteria

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[1]



[2]



[3]

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[4]

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- data publication numbers (incl. DataCite DOI's) are increasing, however...
- data reusability often difficult
 - wide variety of file formats
 - incomplete metadata and/or no discipline-specific metadata
 - insufficient quality information
- affects entire scientific community
 - data users: reusable data difficult to identify
 - data producers and repositories: less reuse of data, reduced publicity
 - funding institutions: project outcomes not reusable

Motivation for AtMoDat:
improve the reusability of
atmospheric model data

develop

quality indicator for **DataCite DOI**
metadata schema including
discipline-specific extensions [1]

extensions for sub-disciplines of the
atmospheric modeling community [2]

[1] https://www.atmodat.de/p/quality_generic/

[2] https://www.atmodat.de/p/quality_discipline/

generic quality indicator

FAIR principles

findable, accessible, interoperable, reuseable

Core Trust Seal

- quality control of metadata
- long term archival of data – e.g. 10 years
- human- and machine-readable landing page
- link to discipline-specific metadata standard

- extension DataCite DOI metadata schema by “quality assessment” or “quality level” [1]
- quality criteria (previous slide)
- standards/criteria linked via PIDs:
 - FAIRness evaluation method
 - repository certification
 - discipline-specific metadata standard
 - additionally applied standards

Example for quality levels (atmospheric model data)

0. no information
1. optional DataCite metadata provided
2. FAIR criteria fulfilled
3. proper landing page
4. 10 years LTA and quality control of metadata
5. ... *open for future ideas* ...

[1] https://www.atmodat.de/p/quality_generic/

Similar interest in a **FAIR / quality extension** of **DataCite**?

Contact us: **info@atmodat.de**

Visit us: **https://www.atmodat.de**

Take part in our partner's **survey**
for urban atmospheric modelers:



uhh.de/orc-survey

Thank you for your attention!

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THE END

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