Improving reusability of **At**mospheric **Mo**del **Dat**a by adapting metadata standards and by providing specific data quality information

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Motivation

- data publication numbers (incl. DataCite DOI's) are increasing, however…

- data reusability often difficult
  - wide variety of file formats
  - incomplete metadata
  - insufficient quality information

> **Motivation for AtMoDat:** improve the reusability of atmospheric model data

- affects entire scientific communities
  - data users: reusable data difficult to identify
  - data producers and repositories: less reuse of data, reduced publicity
  - funding institutions: project outcomes not reusable

Tasks in AtMoDat

support small subdisciplines in developing feasible standardization for their model output:
- Urban atmospheric models
- small MIPs

quality indicator for DataCite DOI metadata schema including discipline-specific extensions[1,2]

Provide extended **DataCite DOI** with **quality indicator** to the atmospheric research community

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

- extension DataCite DOI metadata schema by "quality assessment" or "quality level" [1]

- quality criteria:
  - non-mandatory DataCite metadata filled
  - discipline-specific metadata [2]
  - open file format
  - quality control of metadata by data repository

Example for quality levels (atmospheric model data)

0. no quality control

1. optional DataCite metadata provided

2. netCDF-CF (+ level 1)

3. discipline specific metadata and quality control (+ level 2)

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The end of talk – the beginning of your involvement

AtMoDat

Take part in our **survey** for urban atmospheric modelers:

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

Thank you for your attention!

uhh.de/orm-survey

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