

Bitrounding and Compress

- Paper: Klöwer, M., Razinger, M., Dominguez, J. J., Düben, P. D., & Palmer, T. N. (2021). Compressing atmospheric data into its real information content. *Nature Computational Science*, 1(11), 713–724. <https://doi.org/10.1038/s43588-021-00156-2>
- Video: <https://www.youtube.com/watch?v=kcbOdwfskmY>
- Julia package `BitInformation.jl`: <https://github.com/milankl/BitInformation.jl>
- Python wrapper `xbitinfo`: <https://github.com/observingClouds/xbitinfo>
- Aaron's talk in OES meeting May 4th 2022 [Slides](#)
- [Mattermost channel](#)

Todo: Generate MPIM usecases:

- for domains:
 1. [✓ hernan.campos, 2022-09-20]Ocean: add link to notebook
 2. [✓ hernan.campos, 2022-09-20]Land: add link to notebook
 3. [✓ ann-kristin.naumann, 2024-03-13]Atmosphere: add link to notebook
 4. [✓ hernan.campos, 2022-09-20]Ocean Biogeochemistry: add link to notebook
 5. ...
- with shared analysis notebooks
- using aligned, fair & comparable file size benchmarks
- Answering questions:
 1. Which analysis doesn't work after bitrounding?
 2. What are general recommendations for bitrounding? i.e. `infl=99.99%`?

From:
<https://wiki.mpimet.mpg.de/> - **MPI Wiki**

Permanent link:
https://wiki.mpimet.mpg.de/doku.php?id=analysis:pot_pourri:bitround:start

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