Geoscientific
Model Development
Discussions

Interactive comment on "Bit Grooming: Statistically accurate precision-preserving quantization with compression, evaluated in the netCDF Operators (NCO, v4.4.8+)" *by* Charles S. Zender

Anonymous Referee #2

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The core contribution of this paper appears to be the level of compression achieved while retaining a high degree of dynamic range, as well as statistical properties of resulting data.

This contribution, compared to other methods, is only clearly articulated in the sentence spanning pages 9-11.

Tables 4-7, with some interpretation, are good at conveying the relative resultant size after applying the algorithms examined. This may be a good place to bring together, and highlight, the interplay between the data size and precision achieved at that size.

The number of significant digits is already presented for the Bit Groomer methods. Could this be added for the other methods, either in theory or on a particular data set? Additionally can the dynamic range, or number of bits remaining in the mantissa?