

Interactive comment on “How to average logarithmic retrievals” by B. Funke and T. von Clarmann

Anonymous Referee #2

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This paper discusses the bias that will be introduced when averaging retrievals of logarithmic quantities. The paper shows that by doing so can introduce significant biases relative to linear averaging in the context of a measurement system that has a linear response to concentration. They also discuss how a priori information also impacts these averages as well as instrument noise (in the form of signal to noise). I no have suggestions regarding the content of the paper; however, I felt the title is misleading especially in the context of the last sentence in the abstract which essentially says that the purpose of the study is to illucidate the impact of various logarithmic averaging schemes and that there is no method found to "correct" for biases introduced. Therefore I think a better title would be something like "Biases introduced by retrieving and averaging of logarithms of trace gases."

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Interactive comment on Atmos. Meas. Tech. Discuss., 4, 7159, 2011.