Dear Dr. Butz,

actually the sigma_i is not equal to the departures between retrieved and true vertical profiles but it contains only the component due to the errors in the observations (the radiances). It does not contain the smoothing error component that is the component due to the use of a constraint in the retrieval.

Therefore, we have reworded the sentence in the following way:

“where the vector sigma_i contains the error due to the propagation of the observation noise through the retrieval process (and differs from the total error, equal to the difference between true and retrieved vertical profiles, by the smoothing error due to the use of a constraint in the retrieval)."

Best regards

Simone Ceccherini