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ACPD

8, S2616–S2617, 2008

Interactive Comment

## Interactive comment on "Technical Note: Impact of nonlinearity on changing the a prioriof trace gas profiles estimates from the Tropospheric Emission Spectrometer (TES)" by S. S. Kulawik et al.

## S. S. Kulawik et al.

Received and published: 14 May 2008

In addition to the errata and wording changes found by the reviewers, we found the following errata and confusingly worded statements which have been updated as follows:

Figure 6 - change "initial gues" to "initial guess"

Pg 1267, line 2, "discussed iiin Bowman et al., 2008" to "in"

Pg 1272, line 20 and 25, "suface" to "surface"

In introduction, change word order and clarify the term "noise" to make this statement more clear, "...i.e. that a linear expansion of the forward model is accurate to significantly better than noise between the retrieved and true atmospheric states." to "...i.e.



that a linear expansion of the forward model is accurate between the retrieved and true atmospheric states to significantly better than predicted errors."

In section 3.1.4, update wording to be more clear: "We compare the total degrees of freedom for signal, and at individual values in the averaging kernel diagonal, through comparisons of the mean values, and at the fractional difference (calculated for values greater than 0.001)."

change to:

"Using the total and individual level degrees of freedom for signal from the averaging kernel diagonal, we compare the mean and the fractional differences for the degrees of freedom. Note that the fractional differences for individual levels are calculated for values greater than 0.001 so as to only compare pressure levels which have sensitivity."

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Interactive Comment

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