Atmospheric
Measurement
Techniques

Open Access

Discussions

EGU

AMTD

Interactive
comment

Interactive comment on "MUSICA MetOp/IASI {$H_2O,\delta D$} pair retrieval simulations for validating tropospheric moisture pathways in atmospheric models" *by* Matthias Schneider et al.

Anonymous Referee #2

Received and published: 19 December 2016

In this manuscript the authors present a new technique for mapping simulated water vapor isotopic composition from GCM output into simulated remote sensing data for the MetOp/IASI platform. It's a very important technique and it represents an advance over previous methods developed for other remote sensing platforms.

My specialty is in the applications of this kind of data, and not in the remote sensing techniques that make up the core of the paper. I hope the editors are able to secure a review from someone who can evaluate those more technical aspects of the paper. The 'Applications' part of the manuscript is simply attempting to demonstrate that the authors' technique works and is not trying to address any scientific question, so that component is fine as far as it goes and I look forward to seeing more applications of

this technique in forthcoming papers.

My only real request is to include a more functional example for the Matlab code in the supplemental materials. I took a look at the Matlab code that was provided and found the f_IASIavkT2simulation_v160706.m file, which is a matlab function. That's fine, and the code is clear and well written. I think this contribution would benefit from another Matlab script that uses the function in an example. For those of us who are not specialists in remote sensing, such an example would go a long way to helping the authors' excellent work be available to a broader audience. If there's a good working example, it's easier for the community to modify it to their own applications.

Otherwise, I think this is a fine contribution to AMT. Once the authors are able to put together a good working example for the Matlab and Python code, the paper will be ready for publication.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-316, 2016.