

Interactive comment on “Assessing modelled spatial distributions of ice water path using satellite data” by S. Eliasson et al.

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I started reading this article but it was not written in a standard format so that I did not continue reading. I finished the abstract but it was written in a very strange form with referring to the figures and tables in the text. I am aware that this is an open access journal and everyone has access to the full paper but I think they should still avoid referring to the figures and tables in the text. The abstract should clearly show the summary of the work without any need to go through the text. There are a lot of abbreviations like PATMOS-x which are not well known and need to be defined first. First line: The climate models used in the IPCC AR4 show large differences in monthly mean cloud ice. This is well known because IWP is not the main product in climate models. They have to tune IWP to get correct OLR.

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It is not even appropriate to compare satellite data from different sensors together. Retrieved IWP is a function of the wavelength and shows discrepancy between different sensors. This is from the fact that each sensor is just sensitive to a small fraction of total IWC. Some sensors are not sensitive to thin clouds and some others are saturated under strong clouds so are not able to give IWP for these clouds. Their conclusions are just valid if they use data from the same sensors but onboard different satellites. It is not suggested at all to compare IWP retrieved from visible and infrared sensors together.

The title is not also appropriate. "Modelled spatial distributions" means that the spatial distributions have been modeled but this is not true. This is the spatial distribution of IWP from models.

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