Geosci. Model Dev. Discuss.,
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Geoscientific Model Development Discussions

Interactive comment on "Evaluation of WRF-DART (ARW v.3.9.1.1 and DART manhattan release) multi-phase cloud water path assimilation for short-term solar irradiance forecasting in a tropical environment" *by* Frederik Kurzrock et al.

Anonymous Referee #1

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[General comments] The data assimilation procedure is consistent with commonly applied DA strategies. The authors did their due diligence in setting up the model configuration, which is typically one of the most challenging aspects of solar forecasting with WRF.

As solar forecasting is challenging on a region-by-region basis due to data availability, topography, and cascading errors from parent NWP models, incremental improvements are important to publish to establish both baselines and reference points for others in similar geographical and climatological regions.

The authors followed solid methodology and provided comprehensive analysis on the results of the simulations.

Overall, I find the quality of the paper to be outstanding and acceptable for publication in its current state.

[Specific comments] I appreciate the background on the large scale flow in the case study, as this information is sometimes not present in studies of this type.

[Technical Corrections] Did not find any.

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