

# Response to Chief Editor Comments

Dear executive editor,

Thank you very much for your reminder and suggestions.

We have read your comments carefully and tried our best to fix the problems as mentioned in the letter. The relevant modifications are addressed as follows.

1. We have updated the dataset (version v2) used in this study and restored it in Zenodo repository at <https://doi.org/10.5281/zenodo.12899829>. The dataset includes raw data used to evaluate the performance of the CMA-MESO on forecasting the DnLWI as well as several templates (\*.sav files), via which the software reads the raw data.

2. We have published our code (IDL programs) as a free software with a GPLv3 license at <https://doi.org/10.5281/zenodo.12920314>.

3. We have learnt the “Code and Data Policy” and core principles (especially item 2) carefully. Due to the copyright license of the CMA-MESO model is managed by the operating management department of the CEMC (Ma et al., 2021), We regrettably have no right to provide the license directly but we provided the contact information of the administrator, i.e., if someone wants to use the CMA-MESO model, he/she can contact the operational management department of the CEMC via email ([songzx@cma.gov.cn](mailto:songzx@cma.gov.cn)) or phone (+86-10-68400477).

Therefore, the “Code and data availability” part in manuscript is revised as: “The dataset (version v2) used in this study is available online at <https://doi.org/10.5281/zenodo.12899829> (Yang and Quan, 2024). Software for evaluating the downward long-wave irradiance predicted by the CMA-MESO model in this study is available at <https://doi.org/10.5281/zenodo.12920314>, which is the free software with the GPLv3 license (Quan and Yang, 2024). The MODTRAN software is provided as a download at [http://modtran.spectral.com/modtran\\_order](http://modtran.spectral.com/modtran_order). The CMA-MESO model code cannot be distributed due to the copyright license requirement from the CMA Earth System Modelling and Prediction Centre (CEMC). If someone wants to use the CMA-MESO model, he/she can contact the operational management department of the CEMC via email ([songzx@cma.gov.cn](mailto:songzx@cma.gov.cn)) or phone (+86-10-68400477).”

4. Exactly, the title of the original manuscript is not very precise, and we would like to modify it to “Evaluation of surface downward long-wave irradiance forecasts from the CMA-MESO V4.1-V5.1 based on high time-resolution radiation measurements in China” in the revision of the manuscript.

## References

Ma, Z. S., Zhao, C. F., Gong, J. D., Zhang, J., Li, Z., Sun, J., Liu, Y. Z., Chen, J., and Jiang, Q. G.: Spin-up characteristics with three types of initial fields and the restart effect on

forecast accuracy in the GRAPES global forecast system. *Geosci. Model. Dev.*, 14, 205-221, <https://doi.org/10.5194/gmd-14-205-2021>, 2021.

Best regards,

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