

Dear Dr. Jing Wei

Thank you and the editorial team sincerely for accepting our manuscript entitled " Estimation of Long-term Gridded Cloud Radiative Kernel and Radiative Effects Based on Cloud Fraction " for publication in *Earth System Science Data*. We deeply appreciate your support throughout the review process.

In preparing the final submission files, we have made two minor non-technical revisions to ensure compliance with journal requirements:

(1) **Figure caption correction:** Updated the numbering of Figure 15's caption to maintain sequential consistency with other figures (**Line 903, Page 33**).

(2) **Funding acknowledgment:** Added the full title of the supporting grant ("Youth Program of Henan Provincial Natural Science Foundation") in the Acknowledgments section, as the official grant number is currently pending formal assignment (**Lines 1164~1166, Page 44**).

These amendments do not alter any scientific content or conclusions. We are particularly grateful to the anonymous reviewers for their valuable suggestions, their expertise has substantially improved the manuscript's quality.

Should any further adjustments be required prior to publication, please notify us at your earliest convenience.

Thank you again for your efficient editorial stewardship. We remain committed to contributing high-quality research to *Earth System Science Data* in the future.

Best regards,

Xinyan Liu