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# Comparative analysis of cloud cover databases for CORDEX-AFRICA

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The main objective of the CORDEX program (COordinated Regional climate Downscaling Experiment) [1] is the production of regional climate change scenarios at a global scale, creating a contribution to the IPCC (Intergovernmental Panel on Climate Change) AR5 (5th Assessment Report). Inside this project, Africa is the key region due to the lack of data at this moment.
In this study, the cloud cover information obtained through five well-known databases: ERA-40, ERA-Interim, ISCCP, NCEP and CRU, over the CORDEX-AFRICA domain, is analyzed for the period 1984-2000, in order to determine the similarity between them.To analyze the accuracy and consistency of the climate databases, some statistical techniques such as correlation coefficient (r), root mean square (RMS) differences and a defined skill score (SS), based on the difference between areas of the probability density functions (PDFs) associated to study parameters [2], were applied.
Thus which databases are well-related in different regions and which not are determined, establishing an appropriate framework which could be used to validate the AR5 models in historical simulations.

References

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[2] I. Errasti, A. Ezcurra and J. Saenz. Validation of IPCC AR4 models over the Iberian Peninsula. Theoretical Applied Climatology Journal 103. Springer. 2010. Pages 61-79.

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