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The Role of Initial Information in Climate Prediction

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The role of initial information on climate prediction is studied by using the global analysis method (cell-to-cell mapping). In correspondence with the actual procedure of recognizing the climate, put forward are four kinds of initial conditions in climate prediction. Using these four kinds of initial conditions, the forecast capability of hierarchy prediction and value prediction in a most simplified atmospheric model is studied in this paper. The results indicate that the more initial information is grasped, the less the prediction errors are caused, and then the higher prediction accuracy the model will have.

Key words: initial information; climate prediction; global analysis.