ABSTRACT

Data assimilation consists in estimating the state of a system by combining via numerical methods two different sources of information: models and observations. Nudging can be seen as a relaxation method, by applying a Newtonian recall of the state value toward its direct observation. The Back and Forth Nudging algorithm consists in iteratively and alternately solving forward and backward in time the model equation, with a feedback term to the observations. We propose theoretical and numerical convergence results and comparisons with other data assimilation methods.

1. REFERENCES

