

Interactive comment on “Improvement of climate predictions and reduction of their uncertainties using learning algorithms” by E. Strobach and G. Bel

Anonymous Referee #2

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This paper presents a machine learning-based approach for improving model-generated projections of past and future climate. The work is well motivated citing appropriate literature, and the technical approach is presented in sufficient detail.

Unfortunately, the authors appear to have missed some important literature in this area, most notably work by C. Monteleoni and colleagues over the past several years, see e.g.,:

C. Monteleoni, G. Schmidt, and S. Saroha. Tracking Climate Models. In NASA CIDU, 2010. S. McQuade and C. Monteleoni. Global Climate Model Tracking using Geospa-

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tial Neighborhoods. In The 2nd Int'l Workshop on Climate Informatics, 2012. C. Monteleoni, G. Schmidt, and S. McQuade, Climate Informatics: Accelerating Discovery in Climate Science with Machine Learning. IEEE Computing in Science and Engineering (CISE) Magazine, Special Issue on Machine Learning. 15(5), 32–40, 2013.

After much deliberation, this omission demands rejection of the manuscript. In order to be reconsidered, the authors should thoroughly familiarize themselves with this and any other prior work (in both climate / Earth science and machine learning as it is an interdisciplinary contribution), re-frame the presentation of their approach in the context of the literature, and qualitatively and/or quantitatively compare their approach to existing methods where appropriate.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 7707, 2015.

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