



Efficient training schemes that improve the forecast quality of a supermodel

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Weather and climate models have improved steadily over time as witnessed by objective skill scores, although they remain imperfect. Given these imperfect models, predictions might be improved by combining them dynamically into a so-called “supermodel”. In contrast to the standard multi-model ensemble approach, the models exchange information during the simulation, which leads to new solutions. In this study we explore different techniques to create such a supermodel. The techniques are applied to global climate models. The results indicate that the techniques are computationally efficient and lead to supermodels with superior forecast quality and climatology compared to the individual models or the standard multi-model ensemble approach.