

The Quiet Revolution of Numerical Weather Prediction

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Abstract:

Predicting the weather using the laws of physics has been a success story of weather science and technology. Over the past 40 years the quantified skill of numerical weather prediction to make accurate and reliable global forecasts has increased from being initially out to two days ahead to now being nearly one week ahead. In this talk we will review the crucial ingredients enabling this "quiet scientific revolution" to take place. We will examine what the next decades offer in further advancing the science and technology. The point will be made that this has been possible because of an international public and private sector partnership unparalleled in scientific endeavour. Prospects for further co-operation including via international research programmes and public-private partnerships will be discussed.