



## **ENDGame: The next Met Office atmospheric dynamical core**

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ENDGame is built on the foundation of New Dynamics (introduced operationally in 2002) and aims to be more robust and accurate whilst maintaining or improving conservation and efficiency.

ENDGame is Semi-implicit Semi-Lagrangian discretization and uses the same horizontal staggering (Arakawa C-grid), vertical staggering (Charney Phillips) and equation set and variables as New Dynamics. The major changes include an improved iterative solution procedure and reduced off-centring allowing a much simpler Helmholtz problem.

An example of an idealised Big-bubble Little-bubble test will be shown together with performance in the Global model and 1.5km resolution UKV model. The Global model results will show objective verification including the impact on tropical cyclone forecasts. The UKV results will show the impact on a case study of precipitation over the U.K.

The ENDGame dynamical core is due to become operational in the Met Office in 2014, first in the Global model and then in the limited area model configurations. The Global model change will be accompanied by a change in model resolution from N512 to N768 and an update to the model physics.