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Views on the potential of Cloud computing and IaaS/HPCaaS for meteorology and climatology

Juan Antonio Añel (1), Diego A. Perez Montes (1), David C.H. Wallom (2), Peter Uhe (3), Pablo V. Caderno (4), Alberto Arribas (5), and Tomás F. Pena (6)

(1) EPhysLab, Universidade de Vigo, 32004, Ourense, Spain (j.anhel@uvigo.es), (2) OeRC, University of Oxford, OX1 3QG, Oxford, UK, (3) Environmental Change institute, University of Oxford, OX1 3QY, Oxford, UK, (4) mAdme Technologies Ltd, 32 Lower Lesson Street, Dublin 2, Dublin, Ireland, (5) Met Office Informatics Lab, Exeter, UK, (6) CITIUS, University of Santiago de Compostela, Santiago de Compostela, 15782, Spain

Cloud Computing is a mature technology that offers benefits for a range of applications throughout science. In this presentation we discuss opportunities and challenges for a broad adoption of this technology in the fields of meteorological and climatological sciences, including scientific reproducibility and security. We focus specifically on the use of cloud computing for HPC as a Service.

Moreover we present some examples of two different climate models (one of them using ClimatePrediction.net) run on Cloud Computing Environments provided by three different vendors: Amazon, Google and Microsoft. Some insights on computational performance and cost are discussed.