

Urban-scale Ensemble Simulations and the Paris 2024 Olympics Research Demonstration Project

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The UK Met Office are developing Urban-scale models (horizontal grid lengths 25—300 m) that have the potential to improve forecasts of convection and associated hazardous events. Convective scales are smaller than the predictable scales, which means that a probabilistic framework is required, making ensemble simulations core to our Urban-scale strategy. I recently led an Urban-scale modelling intercomparison (as part of the Paris Research Demonstration Project) involving several national weather services. I will present results and learnings from thunderstorm case studies. Also, during the Paris 2024 Olympics and Paralympics the Urban-scale modelling team are conducting routinely running Urban-scale ensemble simulations. I will present highlights and compare results with km-scale simulations.