

Research and analysis: Optimising the accuracy of radar products with dual polarisation

Rainfall forecast data generated at the Met Office is vital for providing weather and flood warnings, and this project has looked at ways of improving the accuracy and reliability of the radar network as well as fully exploiting and bringing into operation the latest technology.

Radar is particularly important in detecting localised rainfall (often not detected or under-sampled by rain gauge networks), especially where it falls on catchments prone to flash flooding. The upgrade to the UKs dual polarisation radar network in 2016 and the updated data analysis methods from this study means that we can make a step change in the accuracy of rainfall estimates, in particular in very intense precipitation, where radar estimates are most valuable.