

HIW & USER VALUE CHAIN, 8:00-10:00 UTC, 12th Nov

The session started with short welcome by the Chair. This was followed by keynote talk 'Observations for high-impact weather and their use in verification' by Chiara Marsigli of DWD. The talk covered use of new observations and verification framework for High Impact Weather, choice of observations, and observations uncertainty. The speaker also touched upon spatial and temporal representativeness and data stratification. The examples of using observed lightening (flash rates) alongside the radar reflectivity data to verify the ensemble forecasts using of fuzzy verification approaches was also discussed. The talk also covered examples from the ECMWF study involving thunderstorm EFI verification, verification of nowcasting products using observation reports and insurance data. The keynote talk evoked lot of interest in use and treatment of the new type of observations. This was reflected in Q & A session. To a question from Beth on "how to choose the observation or processes the data (raw or blended) and how this impacts verification?" the speaker replied "observations or processing the data to be used should serve the purpose of the verification of the phenomenon. Mark Rodwell commented on the use of reflectivity for verification and suggested verification of high impact weather based on event selection.

The talk was followed by a presentation by Mark Rodwell of ECMWF titled 'User decisions, and how verification based the utility of these decisions could guide developments in probabilistic forecasting'. The highlight of the present was an interactive session involving all the participants in whom for a given probabilistic forecast (of high temperature and strong winds) the users provided different scenarios and the impact on their decisions. The scenarios varied from sporting events on beach, wind mill operations, cycling activity, going to work with umbrella, Mountain hiking and pollution levels in Delhi. The speaker was please with participation and feedback from the audience. Next presentation by Michael Sharpe with the title "New operational measure to assess extreme events using site-specific climatology" was interesting and discussed events of extreme cold conditions. The talk proposed twCRPS and twMAE as site specific measures of performance based on site specific climatology. The talk evoked immense interest and there were suggestions on use of t-test on independent samples. Barabara Brown drew attention on use of GEV and return period based on thresholds or use of Box-Maxima. The talk was followed by three poster presentations. (i) Gofa Flora of Hellenic National Meteorological Service, Greece. The speaker presented 'Appraisal of Challenging WeAther forecasts (AWARE) in COSMO'. The talk featured object based verification in DWD. (ii) Stefano Materia of Fondazione CMCC, Italy "Helping the agricultural food chain make better choices: The value of seasonal climate forecasts for European maize production". The speaker touched upon use of seasonal forecasting of drought. (iii) Hellen Msemo of University of Leeds, United Kingdom "Verification of Tanzanian Meteorological Authority Severe Weather impact-based forecasts". The study presented verification of severe weather impact based forecasts.