DOI: https://doi.org/10.37162/2618-9631-2022-2-6-52

Expertise in spatial verification of radar precipitation nowcasting: identification and statistics of objects, situations and conditional samples / Muravev A.V., Bundel A.Yu., Kiktev D.B., Smirnov A.V. // Hydrometeorological Research and Forecasting, 2022, no. 2 (384), pp. 6-52.

Statistical analysis was performed using methods of the extreme value theory for spatial objects and specified situations identified for object-oriented verification of precipitation regions with substantial and maximal areas. We made an estimation of the effect of missing values at field points and of different observation-forecast pairs construction on volumes and on statistical characteristics of samples retrieved for spatial verification purposes. We used spatial quantile functions and geographical representations in regular coordinates to illustrate particular aspects of composite fields built on about three dozen radars' data over the European territory of Russia.

Keywords: spatial forecast verification, radar precipitation nowcasting, extreme value theory, missing data, conditional verification sampling, spatial quantiles

Tab. 14. Fig. 10. Ref. 57.