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Verification of deterministic and probabilistic radar precipitation nowcasting in warm and cold seasons in the European part of Russia / Muravev A.V., Kiktev D.B., Smirnov A.V., Pavljukov Ju.B., Serebrjannik N.I. // *Hydrometeorological Research and Forecasting*, 2023, no. 1 (387), pp. 21-66.

Comparative quality analysis of ensemble radar precipitation nowcasting based on test results for the warm (May–September 2020) and cold (November 2021–March 2022) seasons are presented. Composite precipitation intensity fields obtained from radar observations were used as control data for verification. In both periods, a slight but systematic advantage of forecasts of the mean ensemble field was revealed, which indicates the expediency of using ensembles of even a small volume. For all the skill scores used (except for the frequency bias), forecasts in the cold season turn out to be better than forecasts in the warm season, however, the sample sizes for verification in the cold season may be significantly lower than the corresponding sample sizes in the warm season. The problems of comparative quality analysis are discussed, which are caused, in particular, by the loss of spatial connectivity of the composite field during the cold season.

Keywords: ensemble nowcasting of meteorological fields, radar precipitation estimates, composite precipitation field, point and spatial field forecast verification

Tab. 19. Fig. 25. Ref. 17.