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The application of the Fraction Skill Score (FSS) to the radar nowcasting of precipitation fields is considered. The main feature of the method is that the quality is estimated not at the points (or cells) of the fields, but in their neighborhoods. Verification of field forecasts acquires a probabilistic character, due to which the well-known “double penalty” danger is eliminated when advancing from coarse computational grids to finer ones. Moreover, the method makes it possible to distinguish such range of scales within which the tested model generates forecasts that are acceptable or useful for both weather forecasters and third-party consumers of forecast products. The features and advantages of the FSS are demonstrated using the data of radar precipitation nowcasting in the warm and cold seasons of 2017–2018. An information archive of observation and forecast fields in the coverage areas of nine DMRL-C radars on the territory of the Central and Northwestern federal districts was used. Due to the large time spent to calculate the skill score, the possibility of obtaining summary estimates based on random samples was tested. Based on the output tabular and graphical verification products, meaningful general and partial conclusions are formulated that are stratified by seasons, radars, thresholds for exceeding the precipitation intensity, and the forecast lead time.

Keywords: precipitation field nowcasting, radar observations, spatial forecast verification, neighborhood verification method, Fractions Skill Score (FSS)

Tab. 8. Fig. 17. Ref. 80.