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A hybrid model for forecasting PM₁₀ surface concentrations in the Moscow region, consisting of a chemical transport model (CTM) and an artificial neural network (ANN), with the use of PM₁₀ automatic measurements data was developed and tested. The ANN was trained to predict PM₁₀ concentrations based on the forecasts of CTM concentrations and meteorological parameters on a 2 km grid. The results of testing the ANN based on independent samples, including the episodes of high PM₁₀ pollution, are discussed.

Keywords: artificial neural network, hybrid model, numerical forecasting of air pollution, PM₁₀, CHIMERE

Tab. 2. Fig. 8. Ref. 10.