A Novel Hybrid Machine Learning Method (OR-ELM-AR) Used in Forecast of PM$_{2.5}$ Concentrations and Its Forecast Performance Evaluation

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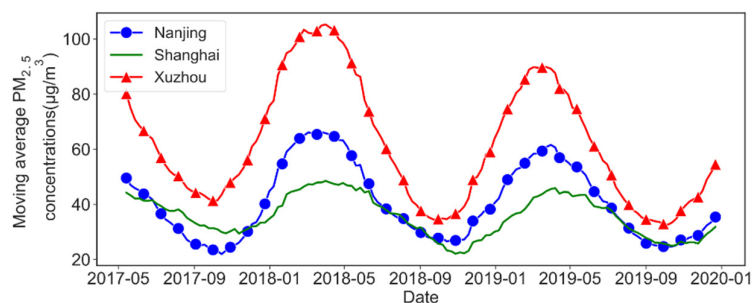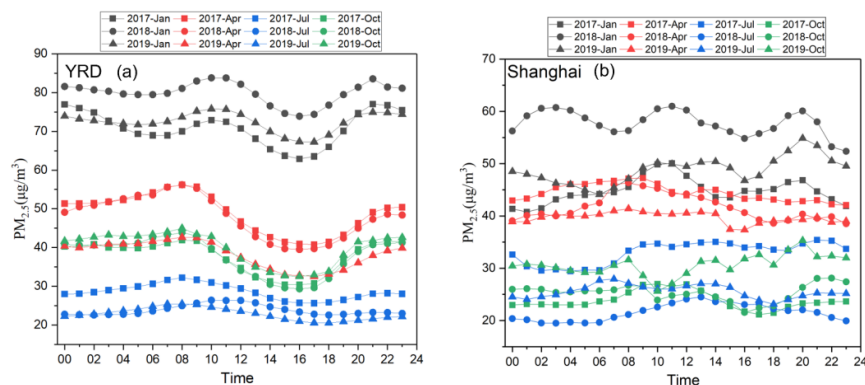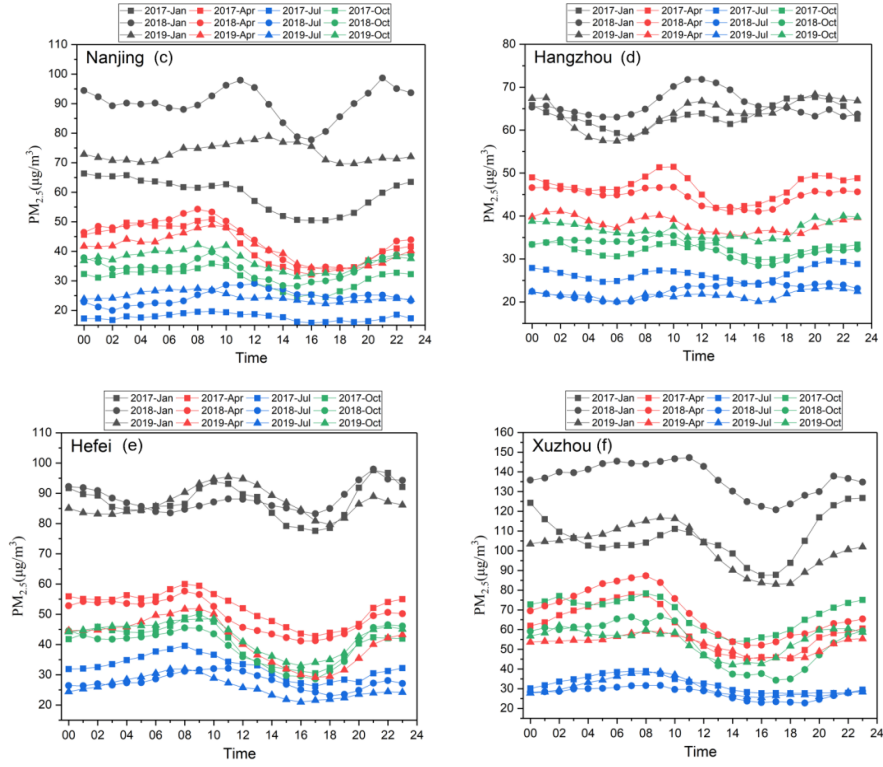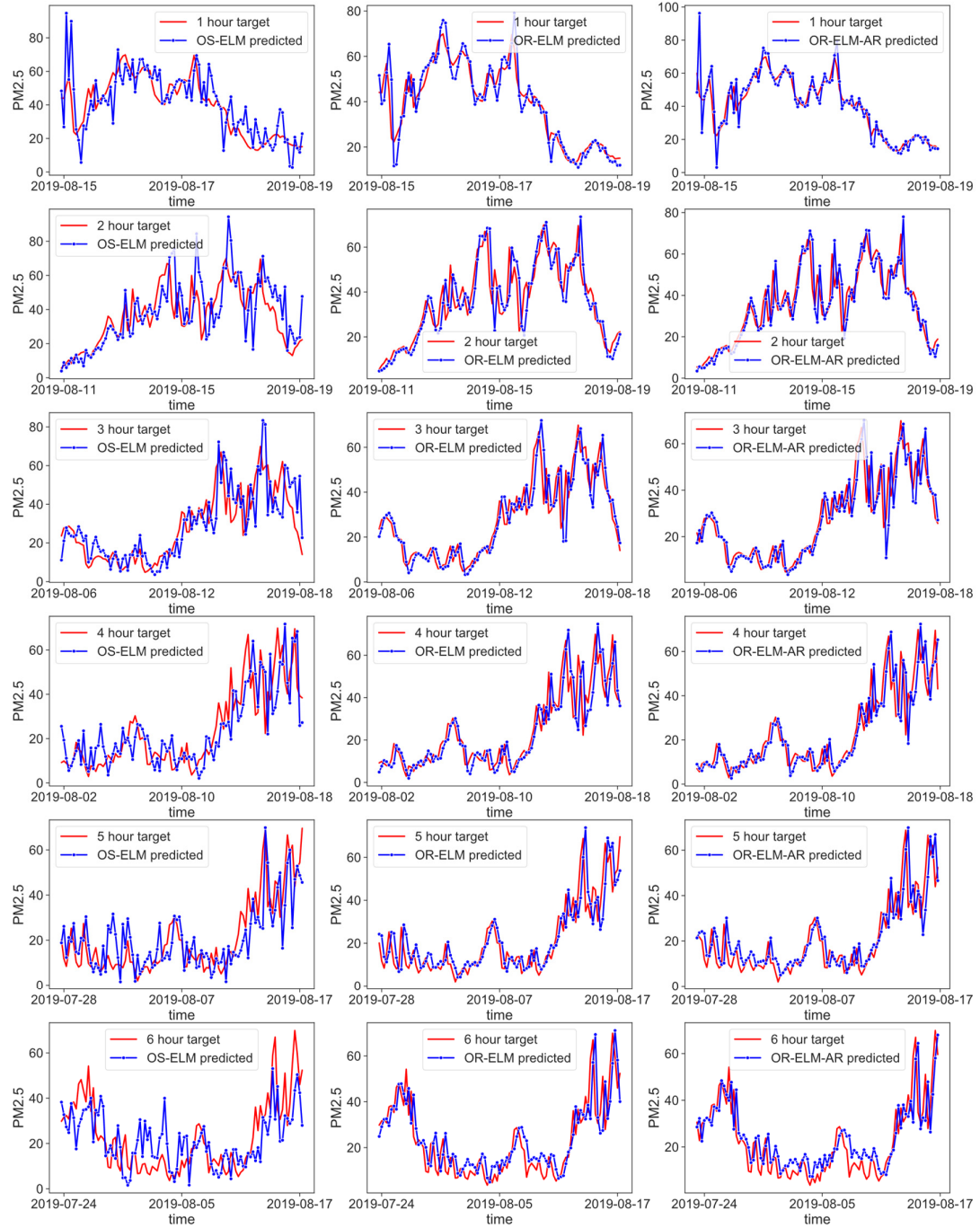
Figure S1. Variations of moving average PM$_{2.5}$ concentrations of 20 weeks with time

Figure S2. Diurnal variation of the average concentrations of observed PM$_{2.5}$ in the whole YRD(a)

region, and Shanghai(b), Nanjing(c), Hangzhou(d), Heifei(e) and Xuzhou(f), respectively

Figure S3. Prediction of OS-ELM, OR-ELM and OR-ELM-AR with different lead times