

Рис. 1: (a) Energy-weather time series with artificially inserted missing values Target time series missing.value.test.0.01. (b) Target segments of the time series missing.value.test.0.01.

Data	Models	MAPE test	MAPE train	AIC
Original features	VAR	0.039	0.158	17161.455
	SVR	0.089	0.176	17158.893
	Random Forest	0.012	0.234	17752.558
	Neural network	0.039	0.170	17248.839
SSA	VAR	0.531	0.485	18369.901
	SVR	0.188	0.294	17892.060
	Random Forest	0.010	0.267	17910.174
	Neural network	0.066	0.306	18056.345
Cubic	VAR	0.011	0.222	17636.759
	SVR	0.096	0.313	18095.198
	Random Forest	0.012	0.251	17811.884
	Neural network	0.011	0.219	17609.407
Conv	VAR	0.507	0.490	18376.374
	SVR	0.164	0.272	17629.683
	Random Forest	0.012	0.258	17857.750

	Neural network	0.055	0.302	18015.134
NW smoothing	VAR	0.007	0.170	17270.908
	SVR	0.162	0.174	17113.293
	Random Forest	0.010	0.231	17733.341
	Neural network	0.030	0.196	17370.330
All	VAR	2.000	2.000	56101.015
	SVR	0.164	0.181	17197.717
	Random Forest	0.010	0.230	17730.743
	Neural network	0.017	0.184	17335.279
PCA	VAR	0.027	0.181	17364.734
	SVR	0.164	0.181	17187.046
	Random Forest	0.009	0.234	17744.702
	Neural network	0.030	0.175	17310.341

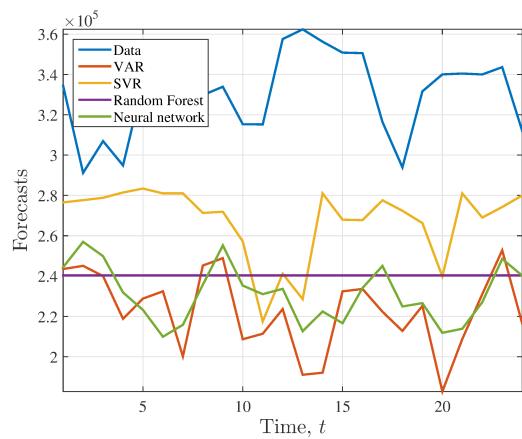
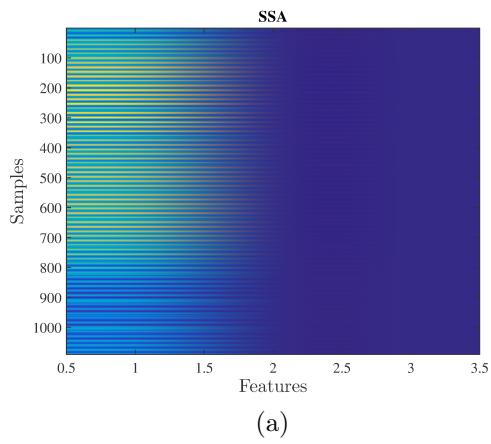
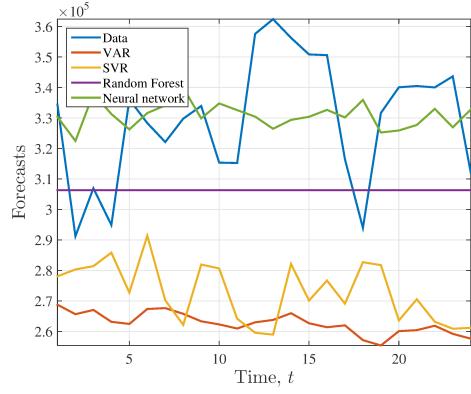


Рис. 2: Forecasting results for missing.value.test.0.01. VAR, SVR, Random Forest, Neural network



(a)



(b)

Рис. 3: (a) Feature generation results for missing.value.test.0.01. SSA (b) Forecasting results for missing.value.test.0.01. VAR, SVR, Random Forest, Neural network

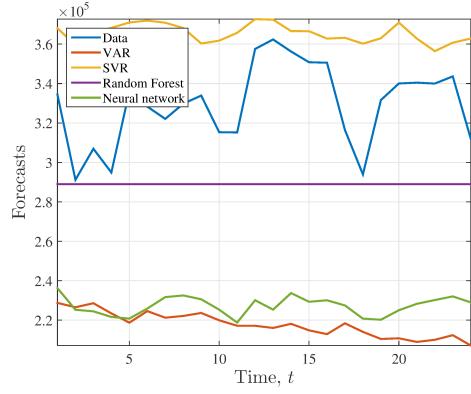
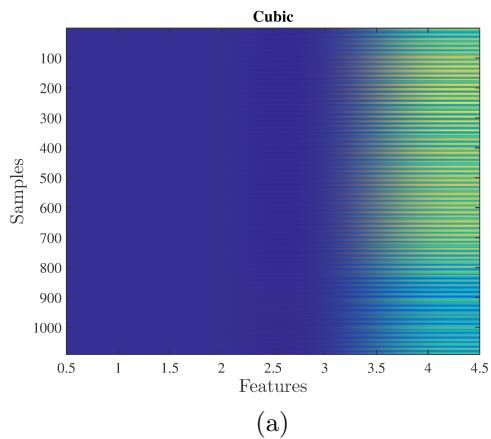
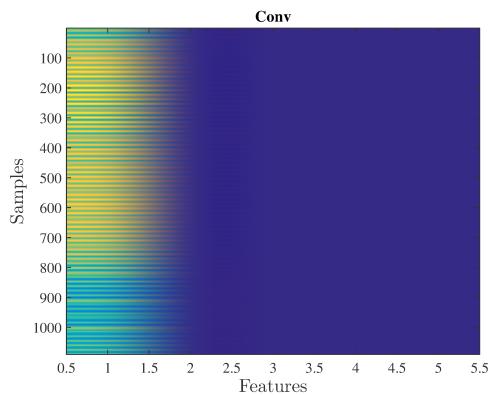
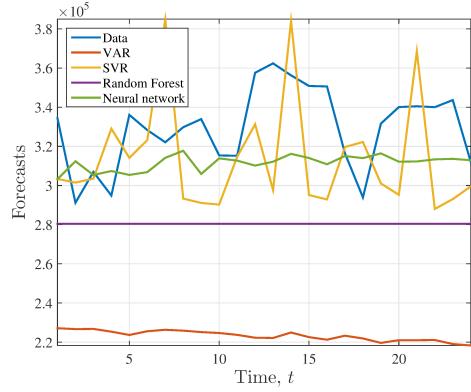


Рис. 4: (a) Feature generation results for missing.value.test.0.01. Cubic (b) Forecasting results for missing.value.test.0.01. VAR, SVR, Random Forest, Neural network



(a)



(b)

Рис. 5: (a) Feature generation results for missing.value.test.0.01. Conv (b) Forecasting results for missing.value.test.0.01. VAR, SVR, Random Forest, Neural network

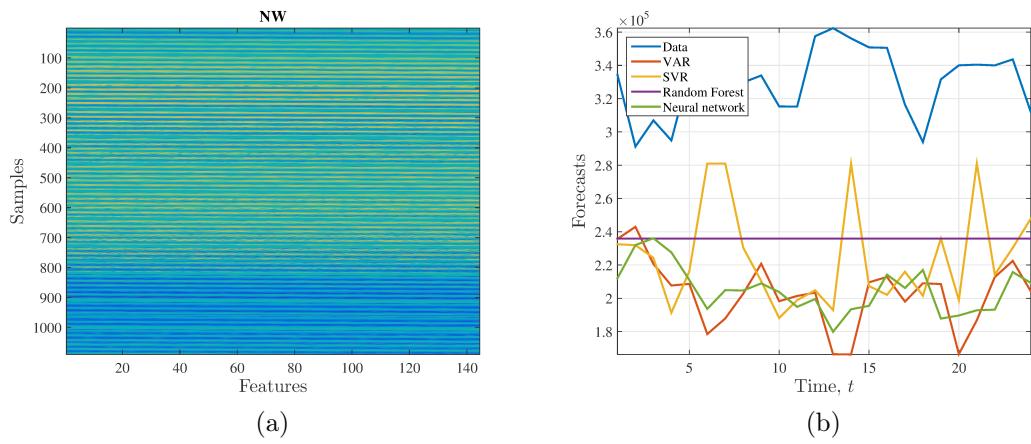
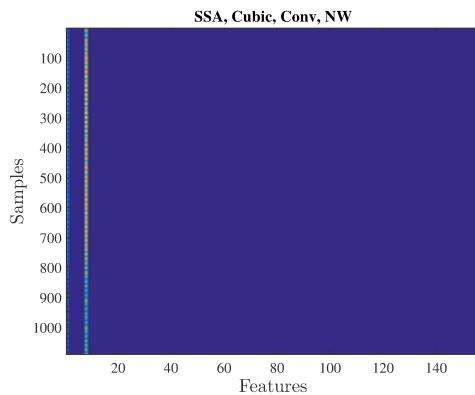
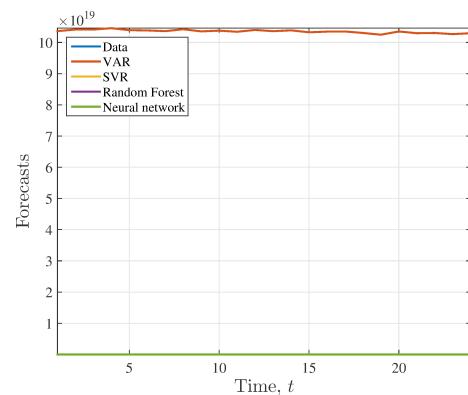


Рис. 6: (a) Feature generation results for missing.value.test.0.01. NW (b) Forecasting results for missing.value.test.0.01. VAR, SVR, Random Forest, Neural network



(a)



(b)

Рис. 7: (a) Feature generation results for `missing.value.test.0.01`. SSA, Cubic, Conv, NW (b) Forecasting results for `missing.value.test.0.01`. VAR, SVR, Random Forest, Neural network

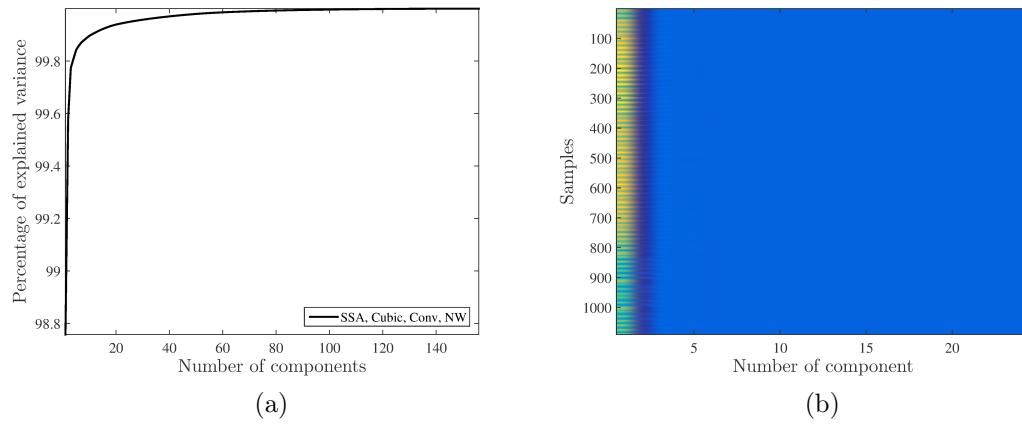


Рис. 8: (a) Dimensionality reduction with PCA for missing.value.test.0.01, SSA, Cubic, Conv, NW. (b) Features reduced with PCA for missing.value.test.0.01, SSA, Cubic, Conv, NW.

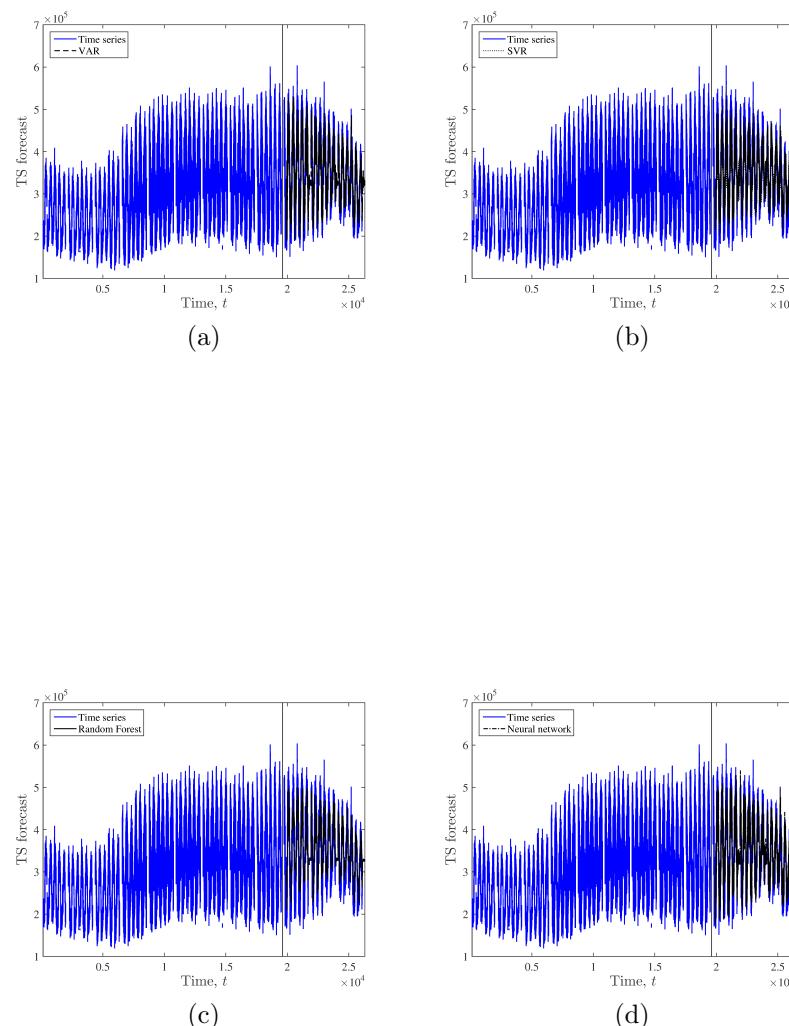


Рис. 9: (a) Forecasting results for missing.value.test.0.01, VAR. (b) Forecasting results for missing.value.test.0.01, SVR. (c) Forecasting results for missing.value.test.0.01, Random Forest. (d) Forecasting results for missing.value.test.0.01, Neural network.