8) o^{...}`\ o 'u - '7

@ # 0) 0 00/0

• •



U ţą́^



Y@Á,^Á,^åÁt¦ãååÙ

Y@Á,^Á,^åÁ¦ãååÙ

$\tilde{O}^{} \approx \tilde{a} = \tilde{a}$



$\tilde{O}^{}$ \hat{a} \hat{a} \hat{a} \hat{a} \hat{a} \hat{a} \hat{a} \hat{a} \hat{a} \hat{a}

· · · · · · · · ·

Õ^}^\æqãæàðjãc Á kas

U U

T [å^ | ÁOE]] | abaera } •

″Á

‴`†k°-`

″ kVV

‴ · QouU ·

kVV ‴°k@°° ·

‴`@

‴ • **N**₩V ·

‴ " k ·

‴k 7 oO ‴8 h 8h

"[·] 7) ŐouU . . .

 " †k° ‡
 #

 " OB"
 ‡
 *
 • • •

‴ k 7 · · · · ·

Œ ₫ ¦^* ¦^•• ∄ }



°ko©l°°° tk°-† kVV k CobuU O

Œ	đ	¦∧*	¦∧∙∙	ā	}
	Ч	•	•	Т	J

Method	AR Task Metric	AR(5)	AR(5,5)	AR(15)	AR(15,10)
ARIMA	MAE	0.08 ± 0.04	0.97 ± 0.28	0.14 ± 0.13	1.09 ± 0.52
	MBE	-0.00 ± 0.00	0.07 ± 0.16	-0.00 ± 0.01	-0.49 ± 0.41
	RSE	0.04 ± 0.04	0.91 ± 0.24	0.08 ± 0.06	1.60 ± 0.14
LSTM	MAE	0.38 ± 0.35	0.96 ± 0.20	0.34 ± 0.30	0.84 ± 0.32
	MBE	-0.02 ± 0.24	0.16 ± 0.29	0.01 ± 0.15	0.06 ± 0.27
	RSE	0.23 ± 0.22	1.17 ± 0.28	0.38 ± 0.23	1.12 ± 0.02
RNN	MAE	0.41 ± 0.39	0.96 ± 0.20	0.40 ± 0.38	0.82 ± 0.27
	MBE	0.02 ± 0.24	0.18 ± 0.27	-0.05 ± 0.10	-0.04 ± 0.29
	RSE	0.27 ± 0.26	1.15 ± 0.37	0.45 ± 0.36	1.06 ± 0.17
VRAE	MAE	0.25 ± 0.19	0.74 ± 0.20	0.24 ± 0.23	0.58 ± 0.27
	MBE	0.07 ± 0.09	0.12 ± 0.07	0.04 ± 0.01	0.04 ± 0.16
	RSE	0.13 ± 0.10	0.89 ± 0.32	0.23 ± 0.16	0.69 ± 0.06

.

Qc'| [| $\Re d$



Q; c^ ¦] [|æ tái }

	Interpolation Task	5-3	5-1	15-3	15-1
Method	Metric				
BRR	MAE	15.70 ± 0.80	5.20 ± 0.56	14.98 ± 2.00	4.28 ± 0.43
	RMSE	18.26 ± 0.69	6.01 ± 0.55	17.82 ± 2.39	5.24 ± 0.25
GP	MAE	2.05 ± 0.43	2.42 ± 0.21	9.19 ± 2.67	8.63 ± 0.32
	RMSE	$\textbf{2.84} \pm \textbf{0.82}$	3.15 ± 0.13	12.62 ± 2.83	11.07 ± 0.35
KNN	MAE	16.31 ± 1.02	5.54 ± 0.05	14.63 ± 2.25	4.56 ± 0.30
	RMSE	19.39 ± 0.49	6.41 ± 0.05	18.16 ± 3.03	5.59 ± 0.23
RF	MAE	14.44 ± 1.27	5.62 ± 0.35	14.90 ± 2.83	4.74 ± 0.36
	RMSE	17.98 ± 2.06	6.68 ± 0.17	19.20 ± 3.76	5.87 ± 0.21

Øæč | ÁÚ¦^åã&cą́į }



Method	RECALL	ACCURACY	PRECISION	F1
LSTM	0.43 ± 0.22	0.87 ± 0.04	0.13 ± 0.07	0.20 ± 0.09
Random Forest	0.31 ± 0.30	0.97 ± 0.01	0.66 ± 0.29	0.34 ± 0.30
VRAE	0.29 ± 0.17	0.85 ± 0.06	0.09 ± 0.07	0.14 ± 0.09
XGBoost	0.30 ± 0.32	0.96 ± 0.02	0.42 ± 0.36	0.28 ± 0.28

$\hat{O}[\{] [\bullet \tilde{a} \hat{c}^{A} \hat{O} \hat{c}]^{A} | \tilde{a} \hat{i}^{A} \rangle caec \tilde{a} \hat{i} \} caec \tilde{a} \hat{i} \}$



$\hat{O}[\ \ \& \check{\bullet} \, \tilde{a} \]$

- *"*· \ · · · · · · ·

 - *″*. u . .

U}*[ậ*ÁÔ~{¦œ

.

•

•

•

•

. .

•



U

" 00/0

" @ '# 'h@'" O 'h 'o '= '"
" \kVO'oVO'V-uO'yh 'Vk-#° '#
") \ - `\ '- '8U O#

· · · ·