

TABELAS RESULTADOS

M3 MONTHLY // AVERAGE MASE

10 QUANTILES // ENSEMBLE_SIZE = 10

MASE	NHITS	MLP	KAN
DA models average	0.769932	0.767777	0.789296
original	0.794920	0.770798	0.784306
qgts	0.762371	0.770547	0.780542
qgtse	0.764134	0.773116	0.780248
SeasonalNaive	1.091028	1.091028	1.091028

Average between MASE and SMAPE	NHITS	MLP	KAN
DA models average	0.405916	0.403977	0.415644
original	0.419556	0.405908	0.413331
qgts	0.401807	0.405630	0.411326
qgtse	0.402841	0.406999	0.411092
SeasonalNaive	0.572059	0.572059	0.572059

M3 QUARTERLY // AVERAGE MASE

10 QUANTILES // ENSEMBLE_SIZE = 10

MASE	NHITS	MLP	KAN
DA models average	1.178108	1.157139	1.197694
original	1.214659	1.150806	1.223391
qgts	1.211291	1.205322	1.203939
qgtse	1.199240	1.191482	1.220222
SeasonalNaive	1.416804	1.416804	1.416804

TOURISM QUARTERLY //

10 QUANTILES // ENSEMBLE_SIZE = 10

MASE	NHITS	MLP	KAN
DA models average	1.634354	1.615561	1.622520
original	1.586140	1.585478	1.568191
qgts	1.536701	1.502263	1.523319
qgtse	1.554478	1.484263	1.551499
SeasonalNaive	1.701593	1.701593	1.701593

TOURISM Monthly //

10 QUANTILES // ENSEMBLE_SIZE = 10

MASE	NHITS	MLP	KAN
DA models average	1.201231	1.229997	1.223298
original	1.187969	1.226844	1.226844
qgts	1.178720	1.185769	1.184336
qgtse	1.203035	1.191259	1.183432
SeasonalNaive	1.344768	1.344768	1.344768

Gluonts M1 Monthly

10 QUANTILES // ENSEMBLE_SIZE = 10

original 0.961395
qgts 0.938075
qgtse 0.934782

MASE	NHITS	MLP	KAN
DA models average	0.970294	0.950459	0.961596
original	0.969180	0.931617	0.961395
qgts	0.951873	0.939712	0.938075
qgtse	0.949429	0.949626	0.934782
SeasonalNaive	1.220704	1.220704	1.220704

Gluonts M1 Quarterly

10 QUANTILES // ENSEMBLE_SIZE = 10

MASE	NHITS	MLP	KAN
DA models average	1.036076	1.017056	1.023659
original	1.021101	1.013096	1.013096
qgts	1.008185	1.025687	1.016787
qgtse	1.109919	1.027735	1.011439
SeasonalNaive	1.646973	1.646973	1.646973

Notes:

All tests for Q = 10 , ensemble = 10

ENSEMBLE (QGTSE) is better than QGTS 8 times out of 18 tests for different datasets / three models (no pattern between models) and no dataset where qgts outperforms ensemble for all models

QGTS is better than no augmentation 14 out of 18 tests both worse performances happen when **forecasting with MLP** models with different datasets, two models are worse for m1 quarterly

QGTS is better than the average error between all other DA models 12 times out of 18 tests. The predictions are **worse for all models when dealing with m3 quarterly dataset** and for MLP when dealing with m3 monthly. Its better for all other datasets.

ENSEMBLE is better than no augmentation: 13 out of 18 tests all bad performances happen with different models and for 3 different datasets, **2 models are worse for m1 quarterly**

QGTSEENSEMBLE is better than the average error between all other DA models 11 times out of 18 tests

both algorithms struggle for m3 quarterly in comparison to other da methods

both algorithms struggle for gluonts m1 quarterly dataset