

approximate_bayesian_computation

Parameters

cm_name: abc_10
dataframe_in: data_missing_10
description: Approximate Bayesian Computation for Time Series
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: approximate_bayesian_computation
name: approximate_bayesian_computation
parameters:
 algorithm: pydream
 decision_variables:
 keys:
 - max_keys
 decision_variables_names:
 - graph_structure
 epsilons:
 - 1
 ground_truth_topology:
 keys:
 - max_keys
 initial_points: 100
 n_chains: 3
 n_draws: 15000
 n_iterations: 100
 nfe: 15000
 num_pool: 1
 population_size: 100
 seed: 11
report_parameters: {}
running_time: 183995.8888516426
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.0	17.314718
1	0.0	16.518868
2	0.0	16.346251
3	0.0	17.878376
4	0.0	16.932011
...
19823	0.0	16.717589
19824	0.0	17.410598
19825	0.0	16.825813
19826	0.0	16.003088
19827	0.0	16.005311

[19828 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
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0	0.0	14.486062	0.0
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with an acceptance percentage of 19.871923153892336%

approximate_bayesian_computation

Parameters

cm_name: abc_20
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description: Approximate Bayesian Computation for Time Series
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: approximate_bayesian_computation
name: approximate_bayesian_computation
parameters:
 algorithm: pydream
 decision_variables:
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 decision_variables_names:
 - graph_structure
 epsilons:
 - 1
 ground_truth_topology:
 keys:
 - max_keys
 initial_points: 100
 n_chains: 3
 n_draws: 15000
 n_iterations: 100
 nfe: 15000
 num_pool: 1
 population_size: 100
 seed: 11
report_parameters: {}
running_time: 183503.29500579834
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	18.794143
1	0.000000e+00	17.920009
2	0.000000e+00	17.722677
3	0.000000e+00	19.413163
4	0.000000e+00	18.361177
...
15496	1.348830e-09	18.524412
15497	1.350579e-09	18.420907
15498	1.352329e-09	18.329990
15499	8.926092e-10	19.398934
15500	4.328898e-10	20.783304

[15501 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
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0	0.0	14.809012	0.0
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with an acceptance percentage of 18.026371378382585%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	183503.295 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	183995.889 sec