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: 1
report_parameters: {}
running_time: 192483.34609794617
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	14.014572
1	16767.361382	14.063922
2	16767.361382	14.284308
3	0.000000	15.720534
4	0.000000	16.597520
...	...	...
16759	0.000016	16.004351
16760	0.000016	16.584476
16761	0.000016	16.500322
16762	0.000016	16.866098
16763	0.000016	15.474567

[16764 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	13.623299	15988.0

with an acceptance percentage of 18.71345029239766%

approximate_bayesian_computation

Parameters

cm_name: abc_20
dataframe_in: data_missing_20
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: 1
report_parameters: {}
running_time: 192420.14844036102
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	14.075004
1	16767.361382	14.107407
2	16767.361382	14.278948
3	0.000000	15.541717
4	0.000000	16.362864
...	...	...
24889	0.000289	15.369927
24890	0.000289	15.646593
24891	0.000289	15.359686
24892	0.000289	16.593616
24893	0.000290	16.248061

[24894 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	13.672874	15988.0

with an acceptance percentage of 21.55293175905543%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_20	192420.148 sec
abc_10	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_10	192483.346 sec