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: 21
report_parameters: {}
running_time: 183584.97206306458
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	16.087670
1	2782.768614	15.977583
2	0.000000	15.779313
3	0.000000	16.300841
4	0.000000	15.376884
...	...	...
10716	0.000000	16.556024
10717	0.000000	14.952038
10718	0.000000	16.242359
10719	0.000000	16.946253
10720	0.000000	14.600410

[10721 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.347552	0.0

with an acceptance percentage of 0.015564894492250906%

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: 21
report_parameters: {}
running_time: 183385.69808363914
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	16.071299
1	2782.768614	15.909707
2	0.000000	15.558756
3	0.000000	16.126711
4	0.000000	15.077079
...	...	...
20520	0.000000	15.705962
20521	0.000000	15.754934
20522	0.000000	15.926982
20523	0.000000	15.097240
20524	0.000000	15.575476

[20525 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.426187	0.0

with an acceptance percentage of 0.008894225424143375%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	183385.698 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	183584.972 sec