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: 16
report_parameters: {}
running_time: 176134.93240308762
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	41.290987
1	33368.040374	40.920009
2	39999.000000	32.751163
3	39999.000000	29.548904
4	39999.000000	29.566967
...	...	...
19065	34589.479087	13.757435
19066	34589.479087	14.333598
19067	34589.479087	15.752044
19068	34589.479087	14.636899
19069	34589.479087	13.986883

[19070 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	13.273536	34589.0

with an acceptance percentage of 0.013341338136215063%

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: 16
report_parameters: {}
running_time: 203317.22203874588
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	43.049046
1	33368.040374	39.857765
2	39999.000000	32.133802
3	39999.000000	31.747767
4	39999.000000	31.880082
...	...	...
9194	34589.479087	16.481721
9195	34589.479087	14.890465
9196	34589.479087	14.645887
9197	34589.479087	14.512090
9198	34589.479087	13.633010

[9199 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	13.350124	34589.0

with an acceptance percentage of 0.013341338136215063%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_20	203317.222 sec
abc_10	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_10	176134.932 sec