approximate_bayesian_computation

Parameters

cm_name: abc_70
dataframe_in: data_missing_70
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: 186576.00573682785
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	20.698156
1	2782.768614	20.001156
2	0.000000	19.994814
3	0.000000	18.900103
4	0.000000	19.946007
...	...	...
10399	0.000000	18.973322
10400	0.000000	19.267233
10401	0.000000	18.522132
10402	0.000000	18.579473
10403	0.000000	19.317698

[10404 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	17.157248	0.0

with an acceptance percentage of 0.011117781780179222%

approximate_bayesian_computation

Parameters

cm_name: abc_80
dataframe_in: data_missing_80
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: 186609.7592880726
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	21.192830
1	2782.768614	20.578201
2	0.000000	20.439641
3	0.000000	19.378192
4	0.000000	19.185049
...	...	...
8984	0.000000	19.672666
8985	0.000000	19.038400
8986	0.000000	19.646849
8987	0.000000	20.847256
8988	0.000000	22.601109

[8989 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	18.177476	0.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_80	186609.759 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	186576.006 sec