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: 185150.24517464638
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	18.247435
1	2782.768614	18.184479
2	0.000000	18.200219
3	0.000000	18.265158
4	0.000000	17.553170
...	...	...
19226	0.000000	17.873217
19227	0.000000	17.988604
19228	0.000000	18.794720
19229	0.000000	17.920608
19230	0.000000	17.990515

[19231 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.387353	0.0

with an acceptance percentage of 0.008894225424143375%

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: 186361.6540567875
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	17.598713
1	2782.768614	17.423014
2	0.000000	17.640561
3	0.000000	17.480620
4	0.000000	16.957108
...	...	...
18880	0.000000	18.292891
18881	0.000000	18.313934
18882	0.000000	19.125241
18883	0.000000	18.031341
18884	0.000000	17.932335

[18885 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	15.817838	0.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	186361.654 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	185150.245 sec