approximate_bayesian_computation

Parameters

cm_name: abc_50
dataframe_in: data_missing_50
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: 185862.5963394642
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	19.536221
1	2782.768614	18.880466
2	0.000000	18.861525
3	0.000000	18.141364
4	0.000000	18.161660
...	...	...
17113	0.000000	18.290439
17114	0.000000	17.891920
17115	0.000000	17.792438
17116	0.000000	19.538653
17117	0.000000	18.809350

[17118 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.403901	0.0

with an acceptance percentage of 0.011117781780179222%

approximate_bayesian_computation

Parameters

cm_name: abc_60
dataframe_in: data_missing_60
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: 185815.19129514694
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	20.928007
1	2782.768614	20.346139
2	0.000000	20.371719
3	0.000000	19.644340
4	0.000000	19.607975
...	...	...
20275	0.000000	20.149299
20276	0.000000	21.276885
20277	0.000000	19.416414
20278	0.000000	20.605674
20279	0.000000	21.608850

[20280 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	18.14407	0.0

with an acceptance percentage of 0.008894225424143375%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_60	185815.191 sec
abc_50	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_50	185862.596 sec