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: 186579.32174634933
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	16.975359
1	2782.768614	16.966836
2	0.000000	16.921241
3	0.000000	17.106337
4	0.000000	16.287889
...	...	...
17048	0.000000	16.804217
17049	0.000000	17.621218
17050	0.000000	18.952517
17051	0.000000	18.645100
17052	0.000000	17.709149

[17053 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.486062	0.0

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: 21
report_parameters: {}
running_time: 186449.82008099556
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	18.037121
1	2782.768614	18.230416
2	0.000000	18.388842
3	0.000000	18.602096
4	0.000000	17.687654
...	...	...
8446	0.000000	19.163678
8447	0.000000	19.452289
8448	0.000000	18.047505
8449	0.000000	15.747227
8450	0.000000	18.076866

[8451 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	15.428045	0.0

with an acceptance percentage of 0.013341338136215063%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	186449.820 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	186579.322 sec