approximate_bayesian_computation

Parameters

cm_name: abc_90_s6
dataframe_in: data_missing_90
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: 6
report_parameters: {}
running_time: 183310.52261185646
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	23.385284
1	17525.218903	23.183839
2	17525.218903	22.271167
3	17525.218903	20.581215
4	0.000000	20.873354
...	...	...
9375	0.000000	20.363061
9376	0.000000	20.235205
9377	0.000000	21.424649
9378	0.000000	21.804235
9379	0.000000	21.469116

[9380 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	18.35291	0.0

with an acceptance percentage of 0.011117781780179222%

approximate_bayesian_computation

Parameters

cm_name: abc_90_s1
dataframe_in: data_missing_90
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: 1
report_parameters: {}
running_time: 190417.90342020988
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	19.538657
1	0.000000	19.772965
2	0.000000	21.981605
3	0.000000	20.408682
4	0.000000	20.837413
...	...	...
18139	0.000000	19.967817
18140	0.000000	19.441116
18141	0.000000	20.162217
18142	0.000000	20.276921
18143	0.000000	21.103634

[18144 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	18.407739	15988.0

with an acceptance percentage of 16.447646365597137%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_90_s6	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_90	183310.523 sec
abc_90_s1	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_90	190417.903 sec