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: 1
report_parameters: {}
running_time: 191702.9837281704
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	17.536736
1	0.000000	17.573844
2	0.000000	19.725752
3	0.000000	18.220747
4	0.000000	18.549322
...	...	...
19704	0.000125	19.065401
19705	0.000125	18.727073
19706	0.000125	18.874793
19707	0.000125	18.612469
19708	0.000125	17.695457

[19709 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	16.22385	15988.0

with an acceptance percentage of 17.672825917772887%

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: 1
report_parameters: {}
running_time: 192116.15672945976
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	18.790955
1	0.000000	19.047297
2	0.000000	21.211403
3	0.000000	19.633024
4	0.000000	20.092428
...	...	...
19598	0.000000	19.047092
19599	0.000000	21.012834
19600	0.000000	20.888218
19601	0.000000	20.223817
19602	0.000000	20.174100

[19603 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	17.593675	15988.0

with an acceptance percentage of 17.523847641918486%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_60	192116.157 sec
abc_50	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_50	191702.984 sec