approximate_bayesian_computation

Parameters

cm_name: abc_40
dataframe_in: data_missing_40
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: 181192.53315210342
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	22.174210
1	17525.218903	21.102228
2	17525.218903	20.333580
3	17525.218903	18.829393
4	0.000000	16.443776
...	...	...
13817	0.000000	15.946872
13818	0.000000	16.576611
13819	0.000000	16.179102
13820	0.000000	16.446645
13821	0.000000	16.211271

[13822 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.656478	0.0

with an acceptance percentage of 0.011117781780179222%

approximate_bayesian_computation

Parameters

cm_name: abc_30
dataframe_in: data_missing_30
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: 182759.1645386219
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	21.886983
1	17525.218903	20.823861
2	17525.218903	20.079549
3	17525.218903	18.619573
4	0.000000	16.237627
...	...	...
12797	0.000000	16.797947
12798	0.000000	16.289973
12799	0.000000	15.324836
12800	0.000000	15.864108
12801	0.000000	14.783970

[12802 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.496863	0.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_40	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_40	181192.533 sec
abc_30	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_30	182759.165 sec