approximate_bayesian_computation

Parameters

cm_name: abc_80
dataframe_in: data_missing_80
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: 11
report_parameters: {}
running_time: 182803.26066231728
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	21.395816
1	0.000000e+00	20.010965
2	0.000000e+00	19.689702
3	0.000000e+00	20.795273
4	0.000000e+00	19.868255
...	...	...
21189	1.670729e-09	20.637783
21190	1.672479e-09	22.518725
21191	1.128059e-09	21.630890
21192	5.836401e-10	19.901653
21193	3.922079e-11	21.382879

[21194 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	4.373637e-11	18.177476	0.0
1	2.799128e-11	18.177476	0.0

with an acceptance percentage of 21.626309118804617%

approximate_bayesian_computation

Parameters

cm_name: abc_70
dataframe_in: data_missing_70
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: 11
report_parameters: {}
running_time: 182675.5400674343
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	20.536475
1	0.000000e+00	19.094002
2	0.000000e+00	18.821318
3	0.000000e+00	19.819084
4	0.000000e+00	18.963767
...	...	...
19660	1.693472e-09	19.371672
19661	1.693472e-09	20.058832
19662	1.157815e-09	18.808551
19663	6.221577e-10	18.478827
19664	8.650044e-11	19.971574

[19665 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	2.285022e-07	17.157248	0.0
1	2.278573e-07	17.157248	0.0

with an acceptance percentage of 21.450648166677784%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_80	182803.261 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	182675.540 sec