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: 11
report_parameters: {}
running_time: 183180.44997096062
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	18.618633
1	0.000000e+00	17.809326
2	0.000000e+00	17.784778
3	0.000000e+00	19.126783
4	0.000000e+00	18.984193
...	...	...
17220	1.821182e-09	18.676456
17221	1.822932e-09	16.916640
17222	1.260988e-09	17.735486
17223	6.990449e-10	18.175286
17224	1.371015e-10	18.400235

[17225 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.349492	0.0

with an acceptance percentage of 23.574144486692013%

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: 11
report_parameters: {}
running_time: 182747.2932407856
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	18.172016
1	0.000000e+00	17.290463
2	0.000000e+00	17.228651
3	0.000000e+00	18.484440
4	0.000000e+00	18.365400
...	...	...
21875	1.308802e-09	18.314063
21876	7.439378e-10	16.873912
21877	1.790736e-10	17.909222
21878	1.790736e-10	17.200015
21879	1.790736e-10	17.533482

[21880 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	1.341750e-08	15.817838	0.0

with an acceptance percentage of 23.714228537122274%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	182747.293 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	183180.450 sec