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: 180583.61711072922
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	16.203384
1	0.000000e+00	15.478607
2	0.000000e+00	15.422965
3	0.000000e+00	16.645049
4	0.000000e+00	15.924812
...	...	...
21964	1.849174e-09	15.061186
21965	1.849174e-09	15.881618
21966	1.281389e-09	16.079291
21967	7.136040e-10	15.083386
21968	1.458192e-10	15.370391

[21969 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	7.995008e-10	14.347552	0.0
1	8.012503e-10	14.347552	0.0

with an acceptance percentage of 23.54523825406355%

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: 180487.08582997322
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	16.073051
1	0.000000e+00	15.192304
2	0.000000e+00	15.581952
3	0.000000e+00	16.804242
4	0.000000e+00	16.331057
...	...	...
25269	2.011873e-09	15.273776
25270	1.350626e-09	16.226700
25271	6.893792e-10	15.166071
25272	2.813237e-11	15.301926
25273	2.813237e-11	15.999762

[25274 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	6.411164e-09	14.175618	0.0

with an acceptance percentage of 26.002268027483154%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	180487.086 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	180583.617 sec