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: 26
report_parameters: {}
running_time: 182716.72160577774
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	45.968818
1	31567.248932	43.194691
2	31536.964515	30.971240
3	10160.840331	16.442851
4	10160.840331	16.227205
...	...	...
19375	0.103807	18.528078
19376	0.103891	18.382182
19377	0.103975	18.687461
19378	0.104059	18.385188
19379	0.104144	18.760895

[19380 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.051953	0.0

with an acceptance percentage of 24.997220554554957%

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: 26
report_parameters: {}
running_time: 187720.0464465618
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	49.068487
1	31567.248932	45.717467
2	39999.000000	35.590752
3	39999.000000	34.511811
4	39999.000000	32.477224
...	...	...
20119	0.000000	17.984612
20120	0.000000	18.673381
20121	0.000000	18.060545
20122	0.000000	18.413960
20123	0.000000	17.291274

[20124 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	2.666594	15.053746	3.0

with an acceptance percentage of 20.481177595446155%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	187720.046 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	182716.722 sec