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: 183673.2232749462
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	46.125620
1	31567.248932	42.468325
2	10191.124749	39.713992
3	21260.288346	41.350388
4	10498.755033	14.703203
...	...	...
17663	0.110414	16.723256
17664	0.110503	16.338820
17665	0.110592	16.412185
17666	0.110681	16.732757
17667	0.110770	16.118112

[17668 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.12345	0.0

with an acceptance percentage of 25.284059324483582%

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: 190250.25811100006
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	45.009044
1	31567.248932	41.439270
2	39999.000000	29.529839
3	39999.000000	28.405647
4	39999.000000	27.054995
...	...	...
23532	0.000000	15.327423
23533	0.000000	15.619998
23534	0.000000	17.106115
23535	0.000000	15.792329
23536	0.000000	15.190086

[23537 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.375996	0.0

with an acceptance percentage of 19.70515642718965%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	190250.258 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	183673.223 sec