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: 6
report_parameters: {}
running_time: 182676.83973813057
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	23.419314
1	17525.218903	22.326727
2	17525.218903	21.162107
3	17525.218903	19.089069
4	0.000000	17.186364
...	...	...
12005	0.000000	17.501068
12006	0.000000	16.416373
12007	0.000000	16.792465
12008	0.000000	17.044157
12009	0.000000	17.800349

[12010 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.548466	0.0

with an acceptance percentage of 0.011117781780179222%

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: 6
report_parameters: {}
running_time: 183187.87738728523
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	24.824830
1	17525.218903	23.596684
2	17525.218903	22.373428
3	17525.218903	19.584026
4	0.000000	18.664712
...	...	...
16452	0.000000	19.445995
16453	0.000000	19.131491
16454	0.000000	17.545216
16455	0.000000	19.100902
16456	0.000000	19.820796

[16457 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	15.057425	0.0

with an acceptance percentage of 0.006670669068107531 5%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	183187.877 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	182676.840 sec