approximate_bayesian_computation

Parameters

cm_name: abc_30
dataframe_in: data_missing_30
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: 182116.8153989315
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	21.704664
1	17525.218903	20.838296
2	17525.218903	20.078081
3	17525.218903	18.622862
4	0.000000	18.628391
...	...	...
20215	0.000000	17.494555
20216	0.000000	18.109727
20217	0.000000	19.418288
20218	0.000000	18.358448
20219	0.000000	18.770443

[20220 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.669574	0.0

with an acceptance percentage of 0.011117781780179222%

approximate_bayesian_computation

Parameters

cm_name: abc_40
dataframe_in: data_missing_40
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: 182922.97076129913
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	21.787302
1	17525.218903	20.971325
2	17525.218903	20.220283
3	17525.218903	18.786951
4	0.000000	18.670374
...	...	...
12064	0.000000	19.528812
12065	0.000000	19.166022
12066	0.000000	19.706721
12067	0.000000	18.824177
12068	0.000000	18.983649

[12069 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	17.294976	0.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_40	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_40	182922.971 sec
abc_30	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_30	182116.815 sec