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: 21
report_parameters: {}
running_time: 183204.58383274078
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	19.723824
1	2782.768614	19.635846
2	0.000000	19.331620
3	0.000000	19.096871
4	0.000000	18.632194
...	...	...
19819	0.000000	18.840158
19820	0.000000	19.228938
19821	0.000000	19.714713
19822	0.000000	20.551890
19823	0.000000	20.869146

[19824 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	17.311529	0.0

with an acceptance percentage of 0.011117781780179222%

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: 21
report_parameters: {}
running_time: 185767.76749157906
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	19.098760
1	2782.768614	18.700338
2	0.000000	18.496763
3	0.000000	18.689838
4	0.000000	18.242427
...	...	...
12479	0.000000	18.570985
12480	0.000000	18.245741
12481	0.000000	18.086436
12482	0.000000	18.816760
12483	0.000000	18.405262

[12484 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 0.008894225424143375%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_40	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_40	183204.584 sec
abc_30	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_30	185767.767 sec