approximate_bayesian_computation

Parameters

cm_name: abc_50
dataframe_in: data_missing_50
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: 184561.3434972763
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	25.391543
1	2782.768614	26.121449
2	0.000000	25.660605
3	0.000000	26.062869
4	0.000000	24.626920
...	...	...
4518	0.000000	26.389397
4519	0.000000	24.260752
4520	0.000000	27.211606
4521	0.000000	26.953288
4522	0.000000	24.602733

[4523 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	20.876458	0.0

with an acceptance percentage of 0.011117781780179222%

approximate_bayesian_computation

Parameters

cm_name: abc_60
dataframe_in: data_missing_60
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: 184972.36912679672
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	30.821443
1	2782.768614	31.697882
2	0.000000	30.892795
3	0.000000	31.585942
4	0.000000	29.859542
...	...	...
5313	0.000000	30.808781
5314	0.000000	28.930404
5315	0.000000	28.949344
5316	0.000000	28.355817
5317	0.000000	30.769352

[5318 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	23.668014	0.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_60	184972.369 sec
abc_50	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_50	184561.343 sec