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: 26
report_parameters: {}
running_time: 181886.4693338871
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	64.767041
1	31567.248932	59.948555
2	39999.000000	37.557185
3	39999.000000	35.997198
4	39999.000000	34.251533
...	...	...
15421	0.000000	19.515860
15422	0.000000	21.093978
15423	0.000000	20.634726
15424	0.000000	20.986544
15425	0.000000	19.867567

[15426 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.551887	15.899923	1.0

with an acceptance percentage of 18.744580081382164%

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: 26
report_parameters: {}
running_time: 183625.94278478622
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	74.764870
1	31567.248932	69.277194
2	39999.000000	41.852841
3	39999.000000	40.601382
4	39999.000000	38.298876
...	...	...
12957	0.000000	23.402417
12958	0.000000	23.541265
12959	0.000000	24.712293
12960	0.000000	22.862856
12961	0.000000	22.355506

[12962 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	17.713633	0.0

with an acceptance percentage of 14.20852511506904%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_40	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_40	183625.943 sec
abc_30	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_30	181886.469 sec