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: 184063.5064792633
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	26.538803
1	17525.218903	25.244235
2	17525.218903	24.001607
3	17525.218903	20.967833
4	0.000000	20.302303
...	...	...
13366	0.000000	19.066963
13367	0.000000	21.160549
13368	0.000000	21.948410
13369	0.000000	20.993784
13370	0.000000	19.271240

[13371 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.015873	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: 181866.3486623764
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	29.238056
1	17525.218903	27.769951
2	17525.218903	26.470348
3	17525.218903	23.126281
4	0.000000	22.637979
...	...	...
6510	0.000000	21.539259
6511	0.000000	23.387361
6512	0.000000	23.604833
6513	0.000000	21.875649
6514	0.000000	18.874026

[6515 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	18.385728	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	181866.349 sec
abc_30	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_30	184063.506 sec