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: 6
report_parameters: {}
running_time: 185229.4500052929
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	41.868964
1	17525.218903	39.457086
2	17525.218903	37.879642
3	17525.218903	32.842254
4	0.000000	30.942735
...	...	...
3299	0.000000	29.501297
3300	0.000000	29.655568
3301	0.000000	29.242481
3302	0.000000	29.269859
3303	0.000000	27.877180

[3304 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	23.238272	0.0

with an acceptance percentage of 0.006670669068107531 5%

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: 6
report_parameters: {}
running_time: 183212.8271226883
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	34.147568
1	17525.218903	32.199610
2	17525.218903	30.870843
3	17525.218903	26.682235
4	0.000000	25.922923
...	...	...
5866	0.000000	24.172942
5867	0.000000	24.372635
5868	0.000000	27.063159
5869	0.000000	27.953048
5870	0.000000	26.373127

[5871 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	20.867037	0.0

with an acceptance percentage of 0.006670669068107531 5%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_60	185229.450 sec
abc_50	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_50	183212.827 sec