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: 16
report_parameters: {}
running_time: 182342.3311226368
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2.254669e+04	35.469256
1	3.878443e+04	18.181530
2	3.878443e+04	19.047959
3	3.878443e+04	18.947788
4	3.878443e+04	18.125195
...	...	...
16401	8.854052e-11	19.005633
16402	8.866846e-11	18.736044
16403	8.879641e-11	18.466437
16404	8.892436e-11	18.284638
16405	8.905231e-11	17.750887

[16406 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.403901	0.0

with an acceptance percentage of 20.4344829119694%

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: 16
report_parameters: {}
running_time: 182980.52415513992
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2.254669e+04	34.025710
1	3.878443e+04	19.678603
2	3.878443e+04	20.268701
3	3.878443e+04	19.515661
4	3.878443e+04	20.154980
...	...	...
16173	9.122744e-11	21.269748
16174	9.135539e-11	19.984316
16175	9.148334e-11	20.412139
16176	9.161128e-11	19.764118
16177	9.173923e-11	19.445516

[16178 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	18.077538	0.0

with an acceptance percentage of 21.005936895470615%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_60	182980.524 sec
abc_50	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_50	182342.331 sec