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: 11
report_parameters: {}
running_time: 179722.6705172062
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.0	19.043554
1	0.0	17.933777
2	0.0	17.933411
3	0.0	19.063660
4	0.0	18.424196
...	...	...
23782	0.0	18.190704
23783	0.0	18.077192
23784	0.0	18.626206
23785	0.0	18.130592
23786	0.0	17.670841

[23787 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.669574	0.0

with an acceptance percentage of 23.885442376537032%

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: 11
report_parameters: {}
running_time: 180576.5428276062
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	19.787480
1	0.000000e+00	18.734602
2	0.000000e+00	18.871778
3	0.000000e+00	19.997694
4	0.000000e+00	19.933159
...	...	...
18869	1.367661e-09	18.986277
18870	7.794311e-10	19.275959
18871	1.912015e-10	19.452370
18872	0.000000e+00	19.159600
18873	0.000000e+00	19.640341

[18874 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	17.311529	0.0

with an acceptance percentage of 25.433037600337986%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_40	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_40	180576.543 sec
abc_30	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_30	179722.671 sec