approximate_bayesian_computation

Parameters

cm_name: abc_80
dataframe_in: data_missing_80
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: 1
report_parameters: {}
running_time: 189707.1481335163
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	19.237515
1	0.000000	19.442909
2	0.000000	21.594826
3	0.000000	20.052038
4	0.000000	20.488129
...	...	...
19371	0.000175	20.203692
19372	0.000175	19.344379
19373	0.000175	20.785863
19374	0.000175	21.005833
19375	0.000176	20.623933

[19376 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	17.777932	15988.0

with an acceptance percentage of 17.441576056745156%

approximate_bayesian_computation

Parameters

cm_name: abc_70
dataframe_in: data_missing_70
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: 1
report_parameters: {}
running_time: 188575.7395541668
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	18.486080
1	0.000000	18.586134
2	0.000000	20.693315
3	0.000000	19.255220
4	0.000000	19.596643
...	...	...
19763	0.000012	19.258444
19764	0.000000	20.409139
19765	0.000000	20.273679
19766	0.000000	19.329489
19767	0.000000	18.553472

[19768 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	17.114702	15988.0

with an acceptance percentage of 16.952393658417275%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_80	189707.148 sec
abc_70	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_70	188575.740 sec