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: 26
report_parameters: {}
running_time: 184306.3216099739
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	49.734329
1	31567.248932	47.068225
2	31536.964515	39.427856
3	10160.840331	19.755563
4	10160.840331	19.661247
...	...	...
21866	0.000000	19.947786
21867	0.000000	20.746873
21868	0.000000	20.302473
21869	0.000000	20.406857
21870	0.000000	20.772494

[21871 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.001365	18.190252	0.0

with an acceptance percentage of 21.486225068374356%

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: 26
report_parameters: {}
running_time: 184553.47123217583
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	51.770187
1	31567.248932	49.059271
2	31536.964515	39.215235
3	10160.840331	19.190228
4	10160.840331	19.059605
...	...	...
21233	0.000000	19.436021
21234	0.000000	19.447087
21235	0.000000	20.302304
21236	0.000000	20.307313
21237	0.000000	18.855696

[21238 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.000457	17.157248	0.0
1	0.000460	17.157248	0.0

with an acceptance percentage of 22.976007826918373%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_80	184306.322 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	184553.471 sec