approximate_bayesian_computation

Parameters

cm_name: abc_90_s6
dataframe_in: data_missing_90
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: 181347.1081111431
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	21.315306
1	17525.218903	20.387596
2	17525.218903	19.734742
3	17525.218903	18.426174
4	0.000000	16.789873
...	...	...
16125	0.000000	16.589527
16126	0.000000	16.411883
16127	0.000000	16.204656
16128	0.000000	17.019666
16129	0.000000	17.102057

[16130 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.774951	0.0

with an acceptance percentage of 0.011117781780179222%

approximate_bayesian_computation

Parameters

cm_name: abc_90_s1
dataframe_in: data_missing_90
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: 191165.67591667175
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	14.577132
1	16767.361382	14.689460
2	16767.361382	14.979127
3	0.000000	16.154346
4	0.000000	16.986197
...	...	...
25281	0.000000	17.190468
25282	0.000000	15.813743
25283	0.000000	16.327580
25284	0.000000	16.058616
25285	0.000000	16.262348

[25286 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	14.419362	15988.0

with an acceptance percentage of 21.566273097191647%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_90_s6	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_90	181347.108 sec
abc_90_s1	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_90	191165.676 sec