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: 26
report_parameters: {}
running_time: 185615.03064870834
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	49.899538
1	31567.248932	47.859474
2	31536.964515	41.246414
3	10223.034214	19.982920
4	10223.034214	20.469976
...	...	...
16758	0.042000	20.163081
16759	0.042000	21.859835
16760	0.042039	20.143796
16761	0.042079	20.001540
16762	0.042079	19.885854

[16763 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.001021	18.35291	0.0
1	0.001078	18.35291	0.0
2	0.000995	18.35291	0.0

with an acceptance percentage of 22.384541836212836%

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: 21
report_parameters: {}
running_time: 186832.34956002235
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	21.667143
1	2782.768614	21.013740
2	0.000000	20.766214
3	0.000000	19.667727
4	0.000000	19.455108
...	...	...
17301	0.000000	20.473668
17302	0.000000	20.815238
17303	0.000000	20.513601
17304	0.000000	20.203305
17305	0.000000	20.027300

[17306 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	18.35291	0.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_90_s6	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_90	185615.031 sec
abc_90_s1	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_90	186832.350 sec