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: 6
report_parameters: {}
running_time: 183772.15230607986
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	75.191239
1	17525.218903	71.861194
2	17525.218903	69.333410
3	17525.218903	60.820420
4	0.000000	55.848517
..	...	...
268	0.000000	50.005866
269	0.000000	50.610175
270	0.000000	53.290402
271	0.000000	52.420904
272	0.000000	46.509150

[273 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	43.364136	0.0

with an acceptance percentage of 0.006670669068107531 5%

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: 6
report_parameters: {}
running_time: 183412.94288253784
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	53.185631
1	17525.218903	50.497218
2	17525.218903	48.549875
3	17525.218903	42.374921
4	0.000000	39.087809
...	...	...
1083	0.000000	36.628638
1084	0.000000	36.329651
1085	0.000000	36.810404
1086	0.000000	36.486676
1087	0.000000	36.205200

[1088 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	30.589719	0.0

with an acceptance percentage of 0.006670669068107531 5%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_80	183772.152 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	183412.943 sec