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: 16
report_parameters: {}
running_time: 310746.9417886734
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	36.342802
1	22546.691528	31.043481
2	22546.691528	29.892284
3	22546.691528	29.037414
4	22546.691528	30.592989
...	...	...
11039	34589.479087	19.607112
11040	34589.479087	19.703053
11041	34589.479087	19.932971
11042	34589.479087	20.065031
11043	34589.479087	18.773049

[11044 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	17.791017	34589.0

with an acceptance percentage of 0.008894225424143375%

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: 11
report_parameters: {}
running_time: 184831.2710058689
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	21.768833
1	0.000000e+00	20.369687
2	0.000000e+00	19.995989
3	0.000000e+00	21.124952
4	0.000000e+00	20.162725
...	...	...
15883	1.646237e-09	21.008361
15884	1.647986e-09	19.925415
15885	1.649736e-09	22.531546
15886	1.087792e-09	19.804884
15887	5.258489e-10	19.458158

[15888 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	1.889070e-07	18.35291	0.0
1	1.907061e-07	18.35291	0.0
2	1.842293e-07	18.35291	0.0

with an acceptance percentage of 21.214951192937985%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_90_s6	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_90	310746.942 sec
abc_90_s1	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_90	184831.271 sec