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: 184027.82225751877
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.0	16.576966
1	0.0	15.604296
2	0.0	16.177776
3	0.0	17.327781
4	0.0	16.760689
...	...	...
26960	0.0	16.994141
26961	0.0	16.555451
26962	0.0	15.762395
26963	0.0	15.890321
26964	0.0	16.401710

[26965 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	2.964766e-07	15.042486	0.0
1	3.019581e-07	15.042486	0.0

with an acceptance percentage of 27.247459586863226%

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: 281757.2543041706
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	34.939719
1	33368.040374	31.425210
2	39999.000000	26.540916
3	39999.000000	26.445406
4	39999.000000	26.631335
...	...	...
11971	34589.479087	14.508534
11972	34589.479087	14.977760
11973	34589.479087	15.090538
11974	34589.479087	15.197328
11975	34589.479087	14.652964

[11976 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	13.955384	34589.0

with an acceptance percentage of 0.013341338136215063%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_90_s6	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_90	281757.254 sec
abc_90_s1	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_90	184027.822 sec