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: 11
report_parameters: {}
running_time: 182859.57555294037
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	39.184986
1	0.000000e+00	39.292019
2	0.000000e+00	37.221913
3	0.000000e+00	37.323380
4	0.000000e+00	34.222123
...	...	...
1968	2.414248e-10	39.062433
1969	2.431742e-10	32.649513
1970	2.449237e-10	34.727311
1971	2.466731e-10	33.057709
1972	2.484226e-10	33.261340

[1973 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	30.281307	0.0

with an acceptance percentage of 4.20474506926378%

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: 11
report_parameters: {}
running_time: 182542.321038723
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000	55.387027
1	0.000000	56.492059
2	0.000000	53.523033
3	0.000000	52.304252
4	0.000000	49.364792
..	...	...
437	0.000003	43.364136
438	0.000003	46.429664
439	0.000003	48.360033
440	0.000003	46.175897
441	0.000003	47.719920

[442 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	42.859522	0.0

with an acceptance percentage of 0.6692904631667889%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_80	182542.321 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	182859.576 sec