approximate_bayesian_computation

Parameters

cm_name: abc_30
dataframe_in: data_missing_30
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: 184095.6848502159
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	3.159753e+04	48.153855
1	3.156725e+04	45.008375
2	3.153696e+04	33.114240
3	1.022303e+04	17.615843
4	1.022303e+04	18.066367
...	...	...
24795	1.603224e-10	18.154785
24796	1.605184e-10	17.961186
24797	1.607144e-10	18.183463
24798	1.609104e-10	19.795292
24799	1.611064e-10	18.615566

[24800 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	16.669574	0.0

with an acceptance percentage of 31.216507682387213%

approximate_bayesian_computation

Parameters

cm_name: abc_40
dataframe_in: data_missing_40
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: 185621.85700821877
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	46.183660
1	31567.248932	43.055642
2	31536.964515	32.143851
3	10223.034214	18.708822
4	0.000000	18.689580
...	...	...
21576	0.195521	19.527954
21577	0.195668	19.655112
21578	0.195815	19.051053
21579	0.195962	18.745749
21580	0.196110	18.314104

[21581 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	17.294976	0.0

with an acceptance percentage of 27.06290440931225%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_40	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_40	185621.857 sec
abc_30	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_30	184095.685 sec