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: 183448.49303340912
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	44.530268
1	31567.248932	41.003324
2	39999.000000	29.261895
3	39999.000000	28.141777
4	39999.000000	26.821350
...	...	...
27941	0.000000	15.910278
27942	0.000000	16.721330
27943	0.000000	16.481236
27944	0.000000	16.125940
27945	0.000000	15.449648

[27946 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.084527	14.496863	0.0
1	0.090918	14.496863	0.0

with an acceptance percentage of 28.5482400551442%

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: 188226.42554998398
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	44.383174
1	31567.248932	40.916343
2	39999.000000	29.250189
3	39999.000000	28.061642
4	39999.000000	26.874969
...	...	...
27302	0.000000	16.257383
27303	0.000000	15.460624
27304	0.000000	16.095867
27305	0.000000	15.665087
27306	0.000000	15.780214

[27307 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	3.354898	13.750362	3.0

with an acceptance percentage of 22.71140462055011%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_40	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_40	188226.426 sec
abc_30	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_30	183448.493 sec