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: 16
report_parameters: {}
running_time: 197390.4092707634
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	34.938181
1	33368.040374	31.733856
2	39999.000000	26.637117
3	39999.000000	26.545148
4	39999.000000	26.726364
...	...	...
18673	34589.479087	14.325828
18674	34589.479087	14.160347
18675	34589.479087	14.657095
18676	34589.479087	14.736344
18677	34589.479087	14.867953

[18678 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	13.585844	34589.0

with an acceptance percentage of 0.013341338136215063%

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: 16
report_parameters: {}
running_time: 183738.83435750008
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2.254669e+04	37.154156
1	3.999900e+04	28.727519
2	3.999900e+04	26.565496
3	3.999900e+04	26.951826
4	3.999900e+04	26.298192
...	...	...
20244	1.205277e-10	16.508121
20245	1.206556e-10	15.960078
20246	1.206556e-10	16.353301
20247	1.207836e-10	16.602030
20248	1.209115e-10	15.427857

[20249 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	1.420231e-11	14.580596	0.0

with an acceptance percentage of 25.410802036777618%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_80	197390.409 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	183738.834 sec