approximate_bayesian_computation

Parameters

cm_name: abc_50
dataframe_in: data_missing_50
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: 183037.54397821426
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	16.239970
1	0.000000e+00	15.259082
2	0.000000e+00	15.857085
3	0.000000e+00	16.971594
4	0.000000e+00	16.423978
...	...	...
20422	2.099346e-09	15.568341
20423	1.435178e-09	15.812392
20424	7.710106e-10	17.152228
20425	1.068430e-10	16.449322
20426	1.068430e-10	16.662314

[20427 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	3.216027e-07	14.675909	0.0
1	3.279989e-07	14.675909	0.0
2	3.205793e-07	14.675909	0.0

with an acceptance percentage of 27.416449869921955%

approximate_bayesian_computation

Parameters

cm_name: abc_60
dataframe_in: data_missing_60
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: 183026.38139891624
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	16.351192
1	0.000000e+00	15.333766
2	0.000000e+00	15.945046
3	0.000000e+00	17.036823
4	0.000000e+00	16.516720
...	...	...
24985	1.616496e-09	16.732972
24986	1.618246e-09	15.922054
24987	1.619995e-09	15.902359
24988	1.621745e-09	16.426974
24989	1.623494e-09	15.799849

[24990 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.767939	0.0

with an acceptance percentage of 37.82714072888177%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_60	183026.381 sec
abc_50	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_50	183037.544 sec