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: 26
report_parameters: {}
running_time: 184701.3613257408
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	3.159753e+04	201.897128
1	3.156725e+04	186.833919
2	3.999900e+04	107.671635
3	3.999900e+04	107.008620
4	3.999900e+04	97.844835
..	...	...
430	1.018496e-11	46.927878
431	1.279597e-11	47.404799
432	1.540698e-11	49.969109
433	1.801800e-11	44.054387
434	0.000000e+00	44.980458

[435 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 0.5358770818046383%

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: 26
report_parameters: {}
running_time: 184398.05857086182
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	3.159753e+04	142.827612
1	3.156725e+04	132.541779
2	3.999900e+04	75.585796
3	3.999900e+04	75.139530
4	3.999900e+04	68.356464
...	...	...
1532	3.331885e-11	39.855237
1533	3.351484e-11	39.592121
1534	3.351484e-11	36.316823
1535	3.371083e-11	34.998726
1536	3.390683e-11	33.526964

[1537 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	1.959932e-12	30.49594	0.0

with an acceptance percentage of 2.592666711137794%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_80	184701.361 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	184398.059 sec