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: 184700.60814404488
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.0	31.081279
1	0.0	30.371557
2	0.0	29.134196
3	0.0	27.002116
4	0.0	28.689283
...	...	...
6081	0.0	32.298571
6082	0.0	30.192693
6083	0.0	30.007703
6084	0.0	31.404997
6085	0.0	33.726559

[6086 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	23.238272	0.0

with an acceptance percentage of 6.470548996064306%

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: 183644.17721533775
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	26.046921
1	0.000000e+00	24.793731
2	0.000000e+00	24.455870
3	0.000000e+00	25.386208
4	0.000000e+00	22.799607
...	...	...
9888	5.841108e-10	26.468977
9889	4.631913e-10	26.185683
9890	3.422719e-10	24.787224
9891	2.213524e-10	25.401803
9892	1.004329e-10	25.035377

[9893 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	20.065159	0.0

with an acceptance percentage of 10.148311208947591%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_60	184700.608 sec
abc_50	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_50	183644.177 sec