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: 26
report_parameters: {}
running_time: 183120.1812915802
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	110.563106
1	31567.248932	102.477783
2	39999.000000	58.497268
3	39999.000000	57.444933
4	39999.000000	52.713855
...	...	...
5919	0.000000	29.792136
5920	0.000000	28.746868
5921	0.000000	26.171330
5922	0.000000	28.512078
5923	0.000000	26.473783

[5924 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	23.668014	0.0

with an acceptance percentage of 6.810753118537789%

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: 26
report_parameters: {}
running_time: 185303.72272276878
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	3.159753e+04	88.790973
1	3.156725e+04	82.244056
2	3.999900e+04	48.174210
3	3.999900e+04	47.078317
4	3.999900e+04	43.712680
...	...	...
8269	6.487375e-11	26.845184
8270	6.506975e-11	27.974529
8271	6.526574e-11	25.042822
8272	6.546173e-11	24.814826
8273	6.546173e-11	26.124632

[8274 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	20.867037	0.0

with an acceptance percentage of 10.648611389055656%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_60	183120.181 sec
abc_50	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_50	185303.723 sec