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: 1
report_parameters: {}
running_time: 191578.5953567028
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	14.413271
1	16767.361382	14.543253
2	16767.361382	14.840707
3	0.000000	16.055942
4	0.000000	16.898381
...	...	...
27976	0.000307	15.872223
27977	0.000308	17.086358
27978	0.000308	17.103114
27979	0.000309	15.959599
27980	0.000309	16.087631

[27981 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	14.149998	15988.0

with an acceptance percentage of 39.42143063615948%

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: 1
report_parameters: {}
running_time: 191661.53080773354
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	14.308424
1	16767.361382	14.455541
2	16767.361382	14.731478
3	0.000000	15.884530
4	0.000000	16.706982
...	...	...
17211	0.000000	16.512148
17212	0.000000	15.832791
17213	0.000000	16.829426
17214	0.000000	16.833868
17215	0.000000	15.815491

[17216 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	14.038631	15988.0

with an acceptance percentage of 21.686345140417586%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_80	191578.595 sec
abc_70	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_70	191661.531 sec