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: 16
report_parameters: {}
running_time: 292257.4927930832
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	36.443523
1	22546.691528	35.082859
2	22546.691528	32.716826
3	22546.691528	32.678032
4	22546.691528	33.077247
...	...	...
11478	34589.479087	19.502648
11479	34589.479087	19.739041
11480	34589.479087	18.679867
11481	34589.479087	19.525018
11482	34589.479087	19.036896

[11483 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	17.447905	34589.0

with an acceptance percentage of 0.008894225424143375%

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: 16
report_parameters: {}
running_time: 340563.747364521
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	33.978584
1	22546.691528	28.207938
2	22546.691528	29.520928
3	22546.691528	29.221916
4	22546.691528	28.838100
...	...	...
10625	34589.479087	18.477791
10626	34589.479087	19.379391
10627	34589.479087	18.841364
10628	34589.479087	17.718338
10629	34589.479087	19.518737

[10630 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	16.902423	34589.0

with an acceptance percentage of 0.008894225424143375%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_80	292257.493 sec
abc_70	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_70	340563.747 sec