approximate_bayesian_computation

Parameters

cm_name: abc_30
dataframe_in: data_missing_30
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: 294854.8771636486
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	33.126559
1	22546.691528	31.594954
2	22546.691528	27.285313
3	22546.691528	27.474114
4	22546.691528	27.312240
...	...	...
9047	34589.479087	17.496591
9048	34589.479087	17.382516
9049	34589.479087	17.495341
9050	34589.479087	16.789311
9051	34589.479087	16.938975

[9052 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	15.81305	34589.0

with an acceptance percentage of 0.008894225424143375%

approximate_bayesian_computation

Parameters

cm_name: abc_40
dataframe_in: data_missing_40
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: 351222.3374669552
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	31.985115
1	22546.691528	32.103357
2	22546.691528	31.146270
3	22546.691528	29.244925
4	22546.691528	29.744518
...	...	...
12433	34589.479087	17.601385
12434	34589.479087	17.287015
12435	34589.479087	17.357551
12436	34589.479087	17.667397
12437	34589.479087	17.680063

[12438 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	16.299042	34589.0

with an acceptance percentage of 0.008894225424143375%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_40	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_40	351222.337 sec
abc_30	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_30	294854.877 sec