approximate_bayesian_computation

Parameters

cm_name: abc_10
dataframe_in: data_missing_10
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: 314280.7910542488
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	32.475730
1	22546.691528	32.680196
2	22546.691528	31.641223
3	22546.691528	29.387292
4	22546.691528	29.847857
...	...	...
11959	34589.479087	15.311954
11960	34589.479087	15.388685
11961	34589.479087	15.887749
11962	34589.479087	15.827805
11963	34589.479087	15.640426

[11964 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	14.702666	34589.0

with an acceptance percentage of 0.008894225424143375%

approximate_bayesian_computation

Parameters

cm_name: abc_20
dataframe_in: data_missing_20
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: 293760.64537739754
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	35.959031
1	22546.691528	34.944401
2	22546.691528	32.335944
3	22546.691528	32.828556
4	22546.691528	29.800293
...	...	...
9405	34589.479087	16.143485
9406	34589.479087	16.243956
9407	34589.479087	16.045438
9408	34589.479087	15.091789
9409	34589.479087	15.651895

[9410 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	14.710758	34589.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_20	293760.645 sec
abc_10	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_10	314280.791 sec