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: 309954.70781326294
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	114.295354
1	22546.691528	99.070878
2	22546.691528	88.945165
3	22546.691528	71.168037
4	22546.691528	62.389187
..	...	...
210	34589.479087	42.319560
211	34589.479087	41.543172
212	34589.479087	40.642234
213	34589.479087	42.717331
214	34589.479087	42.297379

[215 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	37.741499	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: 211425.87239170074
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	22546.691528	82.446734
1	22546.691528	65.184544
2	22546.691528	66.174526
3	22546.691528	66.219496
4	22546.691528	64.314812
..	...	...
524	34589.479087	29.898330
525	34589.479087	29.935580
526	34589.479087	29.548090
527	34589.479087	29.632535
528	34589.479087	29.790195

[529 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	34589.479087	25.698126	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	309954.708 sec
abc_70	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_70	211425.872 sec