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: 1
report_parameters: {}
running_time: 190854.69134831429
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	16.418248
1	16767.361382	16.544729
2	16767.361382	16.611248
3	0.000000	18.100392
4	0.000000	18.934319
...	...	...
21236	0.000209	18.393971
21237	0.000209	17.919259
21238	0.000210	17.254810
21239	0.000210	17.301016
21240	0.000210	18.567748

[21241 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	15.817868	15988.0

with an acceptance percentage of 19.220421141573834%

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: 1
report_parameters: {}
running_time: 192162.28905010223
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	16767.361382	15.832470
1	16767.361382	15.819543
2	16767.361382	15.792143
3	0.000000	17.545186
4	0.000000	18.286267
...	...	...
21995	0.000000	17.410665
21996	0.000000	17.403722
21997	0.000000	18.955327
21998	0.000000	18.831832
21999	0.000000	18.725474

[22000 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	15988.217867	15.296589	15988.0

with an acceptance percentage of 18.722344517821806%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_20	192162.289 sec
abc_10	approximate_bayesian_computation	0.97	manhattan_metrics	data_missing_10	190854.691 sec