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: 6
report_parameters: {}
running_time: 184060.92765903473
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	22.316015
1	17525.218903	21.316404
2	17525.218903	20.261742
3	17525.218903	18.641710
4	0.000000	16.093659
...	...	...
19366	0.000000	15.554516
19367	0.000000	15.979096
19368	0.000000	15.385561
19369	0.000000	15.252543
19370	0.000000	14.659803

[19371 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.347552	0.0

with an acceptance percentage of 0.011117781780179222%

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: 6
report_parameters: {}
running_time: 182168.93580532074
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	17525.218903	21.881451
1	17525.218903	20.885134
2	17525.218903	20.062044
3	17525.218903	18.588629
4	0.000000	16.162601
...	...	...
12772	0.000000	16.316880
12773	0.000000	16.156223
12774	0.000000	15.598773
12775	0.000000	16.224387
12776	0.000000	15.079454

[12777 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	14.265235	0.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_20	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_20	182168.936 sec
abc_10	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_10	184060.928 sec