approximate_bayesian_computation

Parameters

cm_name: abc_60
dataframe_in: data_missing_60
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: 26
report_parameters: {}
running_time: 185097.94556975365
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	48.817122
1	31567.248932	45.804721
2	31536.964515	36.378906
3	10223.034214	19.427170
4	0.000000	19.211907
...	...	...
17706	0.000000	20.540717
17707	0.000000	21.583975
17708	0.000000	20.980875
17709	0.000000	19.944595
17710	0.000000	20.366495

[17711 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	9.407674e-12	18.077538	0.0

with an acceptance percentage of 23.776488115091276%

approximate_bayesian_computation

Parameters

cm_name: abc_50
dataframe_in: data_missing_50
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: 26
report_parameters: {}
running_time: 184890.0420794487
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	31597.533350	51.943520
1	31567.248932	49.094256
2	31536.964515	37.626363
3	10160.840331	18.117227
4	10160.840331	17.973032
...	...	...
21189	0.076966	19.572444
21190	0.077035	18.851779
21191	0.077103	18.287477
21192	0.077172	17.547196
21193	0.000333	17.536052

[21194 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.049889	16.403901	0.0
1	0.045700	16.403901	0.0

with an acceptance percentage of 23.060502968447736%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_60	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_60	185097.946 sec
abc_50	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_50	184890.042 sec