approximate_bayesian_computation

Parameters

cm_name: abc_90_s6

dataframe_in: data_missing_90

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: 184511.92992687225

type: calibrationmodel

version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	3.159753e+04	355.333809
1	3.156725e+04	328.706535
2	3.153696e+04	199.843050
3	3.999900e+04	181.794629
4	3.999900e+04	179.082669
..	...	...
71	0.000000e+00	80.589960
72	1.576022e-14	79.844538
73	3.152043e-14	85.181530
74	4.728065e-14	87.834999
75	6.304086e-14	84.197813

[76 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	3.711406e-13	79.844538	0.0
1	5.466643e-13	79.844538	0.0
2	1.576022e-14	79.844538	0.0

with an acceptance percentage of 0.12007204322593557%

approximate_bayesian_computation

Parameters

cm_name: abc_90_s1
dataframe_in: data_missing_90
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: 21
report_parameters: {}
running_time: 186402.625988245
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	103.819641
1	0.000000	104.106963
2	0.000000	102.272715
3	0.000000	101.088661
4	0.000000	87.812261
5	0.000000	84.302853
6	0.000000	82.646270
7	0.000000	83.299310
8	0.000000	82.690675
9	0.000000	81.204476
10	0.000000	81.483450
11	0.000000	80.589960
12	0.000000	79.844538

```
13     0.000000   85.181530
14     0.000000   87.834999
15     0.000000   84.197813
16   30756.094153  210.767362
17   39999.000000  185.843646
18   39999.000000  183.301350
19   39999.000000  172.384224
20   39999.000000  171.788923
21   39999.000000  162.899820
22     0.000000  109.807017
23     0.000000  106.048976
24     0.000000  104.477571
25     0.000000  104.171709
26     0.000000  101.563558
27     0.000000   97.698008
28     0.000000   84.964029
29     0.000000   86.674977
30     0.000000   86.275227
31     0.000000   88.323565
32     0.000000   84.401971
33     0.000000   84.548652
34     0.000000   82.236231
35     0.000000   79.922664
36     0.000000   84.244260
37     0.000000   84.285266
38     0.000000   92.190010
39     0.000000   91.791619
40     0.000000   92.564950
41     0.000000   78.839511
```
with the most optimal solution:

	graph_structure	Distance	round
0	0.0	78.839511	0.0

with an acceptance percentage of 0.011117781780179222%

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_90_s6	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_90	184511.930 sec
abc_90_s1	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_90	186402.626 sec