

# 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: 11  
report\_parameters: {}  
running\_time: 182486.76633048058  
type: calibrationmodel  
version: 1.0.0

## Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	16.374923
1	0.000000e+00	15.327138
2	0.000000e+00	15.935538
3	0.000000e+00	17.038495
4	0.000000e+00	16.516381
...	...	...
26668	2.134335e-09	15.927180
26669	2.136084e-09	15.925032
26670	1.460234e-09	15.743950
26671	7.843836e-10	16.258228
26672	1.085333e-10	15.746084

[26673 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
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0	7.380818e-09	14.580596	0.0
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with an acceptance percentage of 27.398661419073665%

# 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: 11  
report\_parameters: {}  
running\_time: 183050.7530925274  
type: calibrationmodel  
version: 1.0.0

## Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	0.000000e+00	16.479529
1	0.000000e+00	15.563024
2	0.000000e+00	16.080040
3	0.000000e+00	17.346557
4	0.000000e+00	16.759521
...	...	...
24882	2.022370e-09	15.784679
24883	2.022370e-09	15.996033
24884	1.349440e-09	16.583168
24885	6.765105e-10	15.580316
24886	3.580840e-12	16.007386

[24887 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	3.445388e-07	14.91951	0.0
1	3.434337e-07	14.91951	0.0

with an acceptance percentage of 26.318013030040245%

# Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_80	183050.753 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	182486.766 sec