

# 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: 21  
report\_parameters: {}  
running\_time: 185955.20947623253  
type: calibrationmodel  
version: 1.0.0

## Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	58.015920
1	2782.768614	59.580176
2	0.000000	57.422795
3	0.000000	56.101335
4	0.000000	55.526005
..	...	...
393	0.000000	50.470019
394	0.000000	48.504026
395	0.000000	45.867997
396	0.000000	45.896428
397	0.000000	47.660278

[398 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
0	0.0	42.859522	0.0

with an acceptance percentage of 0.011117781780179222%

# 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: 21  
report\_parameters: {}  
running\_time: 186839.9943470955  
type: calibrationmodel  
version: 1.0.0

## Results

Summary CalibrationModel with solutions:

	graph_structure	Distance
0	2782.768614	39.987928
1	2782.768614	41.200057
2	0.000000	40.111100
3	0.000000	39.932307
4	0.000000	38.849892
..	...	...
974	0.000000	34.292888
975	0.000000	34.666518
976	0.000000	37.501244
977	0.000000	31.260294
978	0.000000	28.848452

[979 rows x 2 columns]

with the most optimal solution:

	graph_structure	Distance	round
--	-----------------	----------	-------

0	0.0	28.848452	0.0
---	-----	-----------	-----

with an acceptance percentage of 0.011117781780179222%

# Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration
abc_80	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_80	185955.209 sec
abc_70	approximate_bayesian_computation	0.96	manhattan_metrics	data_missing_70	186839.994 sec