

# 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: 16  
report\_parameters: {}  
running\_time: 296547.4798130989  
type: calibrationmodel  
version: 1.0.0

## Results

Summary CalibrationModel with solutions:

|    | graph_structure | Distance   |
|----|-----------------|------------|
| 0  | 22546.691528    | 169.992363 |
| 1  | 22546.691528    | 148.368833 |
| 2  | 22546.691528    | 137.592393 |
| 3  | 22546.691528    | 131.026633 |
| 4  | 22546.691528    | 126.361282 |
| 5  | 22546.691528    | 108.439991 |
| 6  | 22546.691528    | 106.985781 |
| 7  | 22546.691528    | 108.958870 |
| 8  | 22546.691528    | 100.939448 |
| 9  | 22546.691528    | 101.393142 |
| 10 | 22546.691528    | 99.998392  |
| 11 | 12946.781395    | 187.577050 |
| 12 | 12946.781395    | 185.963726 |

|    |              |            |
|----|--------------|------------|
| 13 | 23768.130241 | 185.400299 |
| 14 | 34589.479087 | 86.340189  |
| 15 | 34589.479087 | 80.304307  |
| 16 | 34589.479087 | 74.084078  |
| 17 | 34589.479087 | 75.940209  |
| 18 | 34589.479087 | 76.195048  |
| 19 | 34589.479087 | 76.996509  |
| 20 | 34589.479087 | 76.698715  |
| 21 | 34589.479087 | 76.822077  |
| 22 | 34589.479087 | 76.392955  |
| 23 | 34589.479087 | 77.262633  |
| 24 | 34589.479087 | 76.222223  |
| 25 | 34589.479087 | 76.153635  |
| 26 | 34589.479087 | 76.420521  |
| 27 | 34589.479087 | 73.782901  |
| 28 | 34589.479087 | 73.710542  |
| 29 | 34589.479087 | 72.519514  |
| 30 | 34589.479087 | 69.194124  |
| 31 | 34589.479087 | 68.324396  |
| 32 | 34589.479087 | 70.628729  |
| 33 | 34589.479087 | 71.263440  |
| 34 | 34589.479087 | 68.057726  |
| 35 | 34589.479087 | 72.069322  |
| 36 | 34589.479087 | 68.673735  |
| 37 | 23768.130241 | 183.584878 |
| 38 | 34589.479087 | 90.744949  |
| 39 | 34589.479087 | 84.523582  |
| 40 | 34589.479087 | 84.463034  |
| 41 | 34589.479087 | 84.694851  |
| 42 | 34589.479087 | 83.192347  |
| 43 | 34589.479087 | 77.150214  |
| 44 | 34589.479087 | 73.680148  |
| 45 | 34589.479087 | 73.475277  |
| 46 | 34589.479087 | 73.909794  |
| 47 | 34589.479087 | 73.045086  |
| 48 | 34589.479087 | 67.878631  |
| 49 | 34589.479087 | 67.606169  |
| 50 | 34589.479087 | 74.562340  |
| 51 | 34589.479087 | 73.413201  |
| 52 | 34589.479087 | 70.489645  |
| 53 | 34589.479087 | 73.019584  |
| 54 | 34589.479087 | 73.273029  |
| 55 | 34589.479087 | 72.574982  |
| 56 | 34589.479087 | 73.505126  |
| 57 | 34589.479087 | 73.728137  |
| 58 | 34589.479087 | 73.460234  |

with the most optimal solution:

|   | graph_structure | Distance  | round   |
|---|-----------------|-----------|---------|
| 0 | 34589.479087    | 67.606169 | 34589.0 |

with an acceptance percentage of 0.008894225424143375%