## approximate\_bayesian\_computation

```
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: 11
report_parameters: {}
running_time: 182801.0955040455
type: calibrationmodel
version: 1.0.0
```

## Results

## Summary CalibrationModel with solutions:

```
graph structure Distance
0
    0.000000e+00 100.366464
1
    0.000000e+00 97.588532
2
    0.000000e+00 95.148980
3
    0.000000e+00 89.660731
4
    0.000000e+00 88.008846
5
    1.749455e-12 85.762149
6
    4.735863e-11 82.866440
7
    9.406498e-11 81.576612
8
    9.873512e-11 79.577923
9
    1.425208e-10 80.408210
10
   1.425208e-10 76.036632
11
    0.000000e+00 106.005540
    0.000000e+00 106.727978
```

```
13
    0.000000e+00 99.425398
14
    0.000000e+00 97.169945
15
    0.000000e+00 93.430919
    1.749455e-12 91.773757
16
17
    5.782209e-13 93.244079
18
    0.000000e+00 92.857545
19
    1.749455e-12 90.048429
20
    3.498909e-12 90.557037
21
    3.498909e-12 88.584824
22
    1.108974e-11 90.936519
23
    1.868057e-11 88.691039
    2.627141e-11 88.835075
24
25
    0.000000e+00 89.583192
26
    0.000000e+00 87.286114
27
    4.560917e-11 82.285078
28
    8.939484e-11 81.505495
    1.893002e-10 84.077358
29
    1.910496e-10 81.713832
30
31
    1.927991e-10 78.359089
32
    0.000000e+00 90.469509
33
    1.749455e-12 93.813997
34
    6.419598e-12 92.251064
35
    6.419598e-12 91.389512
36
    1.108974e-11 87.589686
    1.283920e-11 90.769824
37
38
    2.043003e-11 84.740581
39
    2.043003e-11 81.744979
40
    1.108725e-10 81.204476
41
    2.013149e-10 81.483450
42
    2.030644e-10 80.589960
43
    2.048138e-10 79.844538
44
    2.065633e-10 85.181530
45
    2.083127e-10 87.834999
46
    2.100622e-10 84.197813
```

with the most optimal solution:

graph\_structure Distance round

0 1.425208e-10 76.036632 0.0

with an acceptance percentage of 0.06893024703711116%