# 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: 6
report_parameters: {}
running_time: 186237.7276418209
type: calibrationmodel
version: 1.0.0

## Results

Summary CalibrationModel with solutions:

| | graph_structure | Distance |
|---|---|---|
| 0 | 17525.218903 | 21.202821 |
| 1 | 17525.218903 | 20.270929 |
| 2 | 17525.218903 | 19.616356 |
| 3 | 17525.218903 | 18.302391 |
| 4 | 0.000000 | 16.704588 |
| ... | ... | ... |
| 12768 | 0.000000 | 16.647419 |
| 12769 | 0.000000 | 16.470622 |
| 12770 | 0.000000 | 16.593571 |
| 12771 | 0.000000 | 15.908563 |
| 12772 | 0.000000 | 16.180817 |

[12773 rows x 2 columns]

with the most optimal solution:

| | graph_structure | Distance | round |
|---|---|---|---|
| 0 | 0.0 | 14.91951 | 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: 6
report_parameters: {}
running_time: 185516.4973294735
type: calibrationmodel
version: 1.0.0

## Results

Summary CalibrationModel with solutions:

| | graph_structure | Distance |
|---|---|---|
| 0 | 17525.218903 | 21.951769 |
| 1 | 17525.218903 | 20.941443 |
| 2 | 17525.218903 | 20.200515 |
| 3 | 17525.218903 | 18.736674 |
| 4 | 0.000000 | 16.594902 |
| ... | ... | ... |
| 13240 | 0.000000 | 16.190197 |
| 13241 | 0.000000 | 16.875633 |
| 13242 | 0.000000 | 16.689019 |
| 13243 | 0.000000 | 16.442072 |
| 13244 | 0.000000 | 16.262435 |

[13245 rows x 2 columns]

with the most optimal solution:

| | graph_structure | Distance | round |
|---|---|---|---|
| 0 | 0.0 | 14.762234 | 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 | 186237.728 sec |
| abc_70 | approximate_bayesian_computation | 0.96 | manhattan_metrics | data_missing_70 | 185516.497 sec |