

approximate_bayesian_computation

Parameters

cm_name: abc_10
dataframe_in: data_missing_10
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:
 - Manufacturing_Time
 epsilons:
 - 1
 n_chains: 3
 n_draws: 20000
 n_iterations: 100
 nfe: 15000
 objectives:
 - Manufacturer
 - Export_Port
 - Transit_Port
 - Import_Port
 - Wholesales_Distributor
 - Retailer_Amsterdam
 - Retailer_Utrecht
 - Retailer_Venlo
 population_size: 100
 ranges_variables:
 - - 1
 - 10
 seed: 20
report_parameters: {}
running_time: 254710.6848168373
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

| | Manufacturing_Time | Distance |
|-------|--------------------|-----------|
| 0 | 3.450848 | 9.821047 |
| 1 | 3.450848 | 9.821047 |
| 2 | 3.450848 | 9.821047 |
| 3 | 3.450848 | 9.821047 |
| 4 | 3.450848 | 9.821047 |
| ... | ... | ... |
| 10880 | 6.293177 | 15.457584 |
| 10881 | 6.293177 | 15.457584 |
| 10882 | 6.293177 | 15.457584 |
| 10883 | 6.293177 | 15.457584 |

10884 1.000000 13.791616

[10885 rows x 2 columns]

with the most optimal solution:

| | Manufacturing_Time | Distance |
|----|--------------------|----------|
| 0 | 2.327862 | 5.655415 |
| 1 | 2.327862 | 5.655415 |
| 2 | 2.327862 | 5.655415 |
| 3 | 2.327862 | 5.655415 |
| 4 | 2.327862 | 5.655415 |
| 5 | 2.327862 | 5.655415 |
| 6 | 2.327862 | 5.655415 |
| 7 | 2.327862 | 5.655415 |
| 8 | 2.327862 | 5.655415 |
| 9 | 2.327862 | 5.655415 |
| 10 | 2.327862 | 5.655415 |
| 11 | 2.327862 | 5.655415 |
| 12 | 2.327862 | 5.655415 |
| 13 | 2.327862 | 5.655415 |
| 14 | 2.327862 | 5.655415 |
| 15 | 2.327862 | 5.655415 |
| 16 | 2.327862 | 5.655415 |
| 17 | 2.327862 | 5.655415 |
| 18 | 2.327862 | 5.655415 |
| 19 | 2.327862 | 5.655415 |
| 20 | 2.327862 | 5.655415 |
| 21 | 2.327862 | 5.655415 |
| 22 | 2.327862 | 5.655415 |
| 23 | 2.327862 | 5.655415 |
| 24 | 2.327862 | 5.655415 |
| 25 | 2.327862 | 5.655415 |
| 26 | 2.327862 | 5.655415 |
| 27 | 2.327862 | 5.655415 |
| 28 | 2.327862 | 5.655415 |
| 29 | 2.327862 | 5.655415 |
| 30 | 2.327862 | 5.655415 |
| 31 | 2.327862 | 5.655415 |
| 32 | 2.327862 | 5.655415 |
| 33 | 2.327862 | 5.655415 |
| 34 | 2.327862 | 5.655415 |
| 35 | 2.327862 | 5.655415 |
| 36 | 2.327862 | 5.655415 |
| 37 | 2.327862 | 5.655415 |
| 38 | 2.327862 | 5.655415 |
| 39 | 2.327862 | 5.655415 |
| 40 | 2.327862 | 5.655415 |

with an acceptance percentage of 18.146499257999434%