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%

approximate_bayesian_computation

Parameters

cm_name: abc_25
dataframe_in: data_missing_25
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: 255349.20145082474
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	Manufacturing_Time	Distance
0	3.450848	11.450511
1	3.450848	11.450511
2	3.450848	11.450511
3	3.450848	11.450511
4	3.450848	11.450511
...	...	...
5495	6.293177	17.103471
5496	6.293177	17.103471
5497	6.293177	17.103471
5498	6.293177	17.103471

5499 1.000000 15.273098

[5500 rows x 2 columns]
with the most optimal solution:
Manufacturing_Time Distance
0 2.423574 6.753296
with an acceptance percentage of 9.16745868974372%

approximate_bayesian_computation

Parameters

cm_name: abc_50
dataframe_in: data_missing_50
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: 243972.06167721748
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	Manufacturing_Time	Distance
0	6.293177	16.047543
1	1.517890	14.755933
2	1.517890	14.755933
3	1.517890	14.755933
4	1.517890	14.755933
...	...	...
7902	2.994732	8.883785
7903	2.994732	8.883785
7904	2.994732	8.883785
7905	2.994732	8.883785

7906 3.198466 10.048670

[7907 rows x 2 columns]
with the most optimal solution:

	Manufacturing_Time	Distance
0	2.571997	7.171605
1	2.571997	7.171605
2	2.571997	7.171605
3	2.571997	7.171605
4	2.571997	7.171605
...	...	...
3235	2.571996	7.171605
3236	2.571996	7.171605
3237	2.571996	7.171605
3238	2.571996	7.171605
3239	2.571996	7.171605

[3240 rows x 2 columns]
with an acceptance percentage of 13.180931419138611%

approximate_bayesian_computation

Parameters

cm_name: abc_75
dataframe_in: data_missing_75
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: 256590.66049170494
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	Manufacturing_Time	Distance
0	3.450848	17.457103
1	3.450848	17.457103
2	3.450848	17.457103
3	3.450848	17.457103
4	3.450848	17.457103
..	...	...
92	2.817295	12.755872
93	2.817295	12.755872
94	2.817295	12.755872
95	2.817295	12.755872

96 3.113987 13.717277

[97 rows x 2 columns]
with the most optimal solution:

	Manufacturing_Time	Distance
0	2.647641	12.125683
1	2.647641	12.125683
2	2.647641	12.125683
3	2.647641	12.125683
4	2.647641	12.125683
5	2.647641	12.125683
6	2.647641	12.125683
7	2.647641	12.125683
8	2.647641	12.125683
9	2.647641	12.125683
10	2.647641	12.125683
11	2.647641	12.125683
12	2.647641	12.125683
13	2.647641	12.125683
14	2.647641	12.125683
15	2.647641	12.125683
16	2.647641	12.125683
17	2.647641	12.125683
18	2.647641	12.125683
19	2.647641	12.125683

with an acceptance percentage of 0.16007203241458656%

approximate_bayesian_computation

Parameters

cm_name: abc_90
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:
  - 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: 254641.69607043266
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions:

	Manufacturing_Time	Distance
0	6.293177	19.437110
1	6.293177	19.437110
2	6.293177	19.437110
3	6.293177	19.437110
4	6.293177	19.437110
...	...	...
6257	1.862132	10.545614
6258	1.862132	10.545614
6259	1.862132	10.545614
6260	1.862132	10.545614

6261 1.862133 10.545614

[6262 rows x 2 columns]
with the most optimal solution:
Manufacturing_Time Distance
0 2.327863 10.508865
1 2.327863 10.508865
2 2.327863 10.508865
3 2.327863 10.508865
with an acceptance percentage of 10.438030447034498%

genetic_algorithm
Parameters

cm_name: ga_10
dataframe_in: data_missing_10
description: Genetic Algorithm for optimization of timeseries
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: genetic_algorithm
name: genetic_algorithm
parameters:
  algorithm: epsNSGAII
  decision_variables:
  - Manufacturing_Time
  epsilons:
  - 1
  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: 180190.5678818226
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions
   Manufacturing_Time Manufacturer Export_Port Transit_Port Import_Port Wholesales_Distributor Retailer_Amsterdam Retailer_Utrecht Retailer_Venlo
0 2.3294 2.080375 2.080375 2.080375 2.080375 2.080375 2.080375 2.080375 2.080375
 and eprogress is [8, 9, 9, 9, 10, 10, 10, 11, 11, 11, 11, 11, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14]

genetic_algorithm

Parameters

cm_name: ga_25
dataframe_in: data_missing_25
description: Genetic Algorithm for optimization of timeseries
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: genetic_algorithm
name: genetic_algorithm
parameters:
    algorithm: epsNSGAII
    decision_variables:
    - Manufacturing_Time
    epsilons:
    - 1
    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: 181671.57052230835
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions
   Manufacturing_Time Manufacturer Export_Port Transit_Port Import_Port Wholesales_Distributor
Retailer_Amsterdam Retailer_Utrecht Retailer_Venlo
0   2.71716   3.004272   3.004272   3.004272   3.004272   3.004272   3.004272
3.004272   3.004272
 and eprogress is [6, 7, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9,
9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9,
9, 9, 9, 9, 9, 9, 9, 9, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 11, 11, 11, 11, 11, 11,
11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11]

genetic_algorithm
Parameters

cm_name: ga_50
dataframe_in: data_missing_50
description: Genetic Algorithm for optimization of timeseries
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: genetic_algorithm
name: genetic_algorithm
parameters:
  algorithm: epsNSGAII
  decision_variables:
  - Manufacturing_Time
  epsilons:
  - 1
  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: 179471.1575601101
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions
  Manufacturing_Time Manufacturer Export_Port Transit_Port Import_Port Wholesales_Distributor
Retailer_Amsterdam Retailer_Utrecht Retailer_Venlo
0 2.651345 4.156358 4.156358 4.156358 4.156358 4.156358 4.156358
4.156358 4.156358
and eprogress is [7, 8, 9, 9, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13]

genetic_algorithm
Parameters

cm_name: ga_75
dataframe_in: data_missing_75
description: Genetic Algorithm for optimization of timeseries
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: genetic_algorithm
name: genetic_algorithm
parameters:
    algorithm: epsNSGAII
    decision_variables:
    - Manufacturing_Time
    epsilons:
    - 1
    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: 181070.25341439247
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions

	Manufacturing_Time	Manufacturer	Export_Port	Transit_Port	Import_Port	Wholesales_Distributor	Retailer_Amsterdam	Retailer_Utrecht	Retailer_Venlo
0	2.858764	6.815969	6.815969	6.815969	6.815969	6.815969	6.815969	6.815969	6.815969

and eprogress is [8, 8, 9, 10, 10, 10, 10, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13]

genetic_algorithm
Parameters

cm_name: ga_90
dataframe_in: data_missing_90
description: Genetic Algorithm for optimization of timeseries
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: genetic_algorithm
name: genetic_algorithm
parameters:
    algorithm: epsNSGAII
    decision_variables:
    - Manufacturing_Time
    epsilons:
    - 1
    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: 181842.53068256378
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with solutions
   Manufacturing_Time Manufacturer Export_Port Transit_Port Import_Port Wholesales_Distributor
Retailer_Amsterdam Retailer_Utrecht Retailer_Venlo
0   2.450794   5.585503   5.585503   5.585503   5.585503   5.585503   5.585503
5.585503   5.585503
 and eprogress is [5, 6, 7, 7, 7, 7, 7, 7, 7, 8, 8, 8, 8, 8, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9,
9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9,
9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,
10, 10, 10, 10, 10, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11, 11]

powell_method

Parameters

cm_name: powell_10
dataframe_in: data_missing_10
description: Powell Method for optimization of timeseries with simulation
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: powell_method
name: powell_method
parameters:
  decision_variables:
  - Manufacturing_Time
  epsilons:
  - 1
  n_draws: 20000
  n_iterations: 100
  nfe: 1500
  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: 526.240327835083
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with most optimal solution:

	Manufacturing_Time	Distance
0	3.016788	5.332873

powell_method

Parameters

cm_name: powell_25
dataframe_in: data_missing_25
description: Powell Method for optimization of timeseries with simulation
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: powell_method
name: powell_method
parameters:
  decision_variables:
  - Manufacturing_Time
  epsilons:
  - 1
  n_draws: 20000
  n_iterations: 100
  nfe: 1500
  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: 444.33024072647095
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with most optimal solution:

	Manufacturing_Time	Distance
0	6.443089	15.169254

powell_method

Parameters

cm_name: powell_50
dataframe_in: data_missing_50
description: Powell Method for optimization of timeseries with simulation
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: powell_method
name: powell_method
parameters:
  decision_variables:
  - Manufacturing_Time
  epsilons:
  - 1
  n_draws: 20000
  n_iterations: 100
  nfe: 1500
  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: 586.5557076931
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with most optimal solution:

	Manufacturing_Time	Distance
0	2.346829	5.65042

powell_method

Parameters

cm_name: powell_75
dataframe_in: data_missing_75
description: Powell Method for optimization of timeseries with simulation
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: powell_method
name: powell_method
parameters:
  decision_variables:
  - Manufacturing_Time
  epsilons:
  - 1
  n_draws: 20000
  n_iterations: 100
  nfe: 1500
  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: 2144.3906259536743
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with most optimal solution:

	Manufacturing_Time	Distance
0	3.122109	9.648194

powell_method

Parameters

cm_name: powell_90
dataframe_in: data_missing_90
description: Powell Method for optimization of timeseries with simulation
diff_func_name: manhattan_metrics
diff_func_parameters: {}
model_method: powell_method
name: powell_method
parameters:
  decision_variables:
  - Manufacturing_Time
  epsilons:
  - 1
  n_draws: 20000
  n_iterations: 100
  nfe: 1500
  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: 600.1501109600067
type: calibrationmodel
version: 1.0.0

Results

Summary CalibrationModel with most optimal solution:
  Manufacturing_Time Distance
0   2.965902 8.245465

Summary

Model Name	Model Method	Score	Difference Function	Dataframe	Duration	Solution Params
powell_90	powell_method	0.95	manhattan_metrics	data_missing_90	600.150 sec	{'Manufacturing_Time': 2.965902059635142}
powell_75	powell_method	0.93	manhattan_metrics	data_missing_75	2144.391 sec	{'Manufacturing_Time': 3.1221094041446626}
powell_50	powell_method	0.98	manhattan_metrics	data_missing_50	586.556 sec	{'Manufacturing_Time': 2.346829132207956}
powell_25	powell_method	0.56	manhattan_metrics	data_missing_25	444.330 sec	{'Manufacturing_Time': 6.443089153898932}
powell_10	powell_method	0.94	manhattan_metrics	data_missing_10	526.240 sec	{'Manufacturing_Time': 3.0167881828340235}
ga_90	genetic_algorithm	0.99	manhattan_metrics	data_missing_90	181842.531 sec	{'Manufacturing_Time': 2.450794354758071}
ga_75	genetic_algorithm	0.96	manhattan_metrics	data_missing_75	181070.253 sec	{'Manufacturing_Time': 2.858763526594222}
ga_50	genetic_algorithm	0.98	manhattan_metrics	data_missing_50	179471.158 sec	{'Manufacturing_Time': 2.6513445545534204}
ga_25	genetic_algorithm	0.98	manhattan_metrics	data_missing_25	181671.571 sec	{'Manufacturing_Time': 2.7171603912720954}
ga_10	genetic_algorithm	0.98	manhattan_metrics	data_missing_10	180190.568 sec	{'Manufacturing_Time': 2.3294004670555495}
abc_90	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_90	254641.696 sec	{'Manufacturing_Time': 2.3278626528401407}
abc_75	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_75	256590.660 sec	{'Manufacturing_Time': 2.6476405332840307}
abc_50	approximate_bayesian_computation	0.99	manhattan_metrics	data_missing_50	243972.062 sec	{'Manufacturing_Time': 2.5719967714124583}
abc_25	approximate_bayesian_computation	0.99	manhattan_metrics	data_missing_25	255349.201 sec	{'Manufacturing_Time': 2.423573942574758}
abc_10	approximate_bayesian_computation	0.98	manhattan_metrics	data_missing_10	254710.685 sec	{'Manufacturing_Time': 2.3278617755876225}