## 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:
    keys:
    - max_keys
  decision_variables_names:
  - graph_structure
  epsilons:
  - 1
  ground_truth_topology:
    keys:
    - max_keys
  initial_points: 100
  n_draws: 20000
  n_iterations: 100
  nfe: 1500
  num pool: 1
  population_size: 100
  seed: 26
report_parameters: {}
running_time: 3908.2527074813843
type: calibrationmodel
version: 1.0.0
```

#### Results

```
Summary CalibrationModel with most optimal solution:
graph_structure Distance round
0 16656.210933 2.859083 16656.0
```

## powell\_method Parameters

```
cm_name: powell_20
dataframe in: data missing 20
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:
    keys:
    - max_keys
  decision_variables_names:
  - graph_structure
  epsilons:
  - 1
  ground_truth_topology:
    keys:
    - max_keys
  initial_points: 100
  n_draws: 20000
  n_iterations: 100
  nfe: 1500
  num pool: 1
  population_size: 100
  seed: 26
report_parameters: {}
running_time: 3969.0694057941437
type: calibrationmodel
version: 1.0.0
```

#### Results

```
Summary CalibrationModel with most optimal solution:
graph_structure Distance round
0 15278.563493 4.065108 15279.0
```

# powell\_method Parameters

```
cm_name: powell_30
dataframe in: data missing 30
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:
    keys:
    - max_keys
  decision_variables_names:
  - graph_structure
  epsilons:
  - 1
  ground_truth_topology:
    keys:
    - max_keys
  initial_points: 100
  n_draws: 20000
  n_iterations: 100
  nfe: 1500
  num pool: 1
  population_size: 100
  seed: 1
report_parameters: {}
running_time: 3612.7409818172455
type: calibrationmodel
version: 1.0.0
```

#### Results

```
Summary CalibrationModel with most optimal solution:
graph_structure Distance round
0 16656.3146 5.492568 16656.0
```

### Summary

| Model Name | Model Method  | Score | Difference Function | Dataframe       | Duration     |
|------------|---------------|-------|---------------------|-----------------|--------------|
| powell_30  | powell_method | 0.97  | manhattan_metrics   | data_missing_30 | 3612.741 sec |
| powell_20  | powell_method | 0.96  | manhattan_metrics   | data_missing_20 | 3969.069 sec |
| powell_10  | powell_method | 0.97  | manhattan_metrics   | data_missing_10 | 3908.253 sec |