### powell\_method Parameters

```
cm_name: powell_70
dataframe in: data missing 70
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: 16
report_parameters: {}
running_time: 12714.588242530823
type: calibrationmodel
version: 1.0.0
```

#### Results

```
Summary CalibrationModel with most optimal solution:
graph_structure Distance round
0 14198.618836 7.489606 14199.0
```

# powell\_method Parameters

```
cm_name: powell_80
dataframe in: data missing 80
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: 16
report_parameters: {}
running_time: 18676.82570695877
type: calibrationmodel
version: 1.0.0
```

#### Results

```
Summary CalibrationModel with most optimal solution:
graph_structure Distance round
0 16643.051668 7.170793 16643.0
```

## 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:
    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: 16
report_parameters: {}
running_time: 5456.934916257858
type: calibrationmodel
version: 1.0.0
```

#### Results

```
Summary CalibrationModel with most optimal solution:
graph_structure Distance round
0 15278.64045 10.285055 15279.0
```

### Summary

| Model Name | Model Method  | Score | Difference Function | Dataframe       | Duration      |
|------------|---------------|-------|---------------------|-----------------|---------------|
| powell_90  | powell_method | 0.96  | manhattan_metrics   | data_missing_90 | 5456.935 sec  |
| powell_80  | powell_method | 0.97  | manhattan_metrics   | data_missing_80 | 18676.826 sec |
| powell_70  | powell_method | 0.96  | manhattan_metrics   | data_missing_70 | 12714.588 sec |