

Warning: Training stopped at iteration 1041 because training loss is NaN. Predictions using the output network might contain NaN values.

| Iter | Eval | Objective | BestSoFar | SectionDepth | InitialLearn- | Momentum ↴ |
|--|--------|-----------|--|--------------|---------------|--------------------------|
| L2Regulariza- | | runtime | (observed) <td>(estim.)</td> <th>Rate</th> <td></td> | (estim.) | Rate | |
| result | | | | | | |
| tion | | | | | | |
| 1 | Best | 0.804 | 39.568 | 0.804 | 1 | 0.61195 0.87128 ↴ |
| 9.4788e-09 | | | | | | |
| 2 | Best | 0.024 | 179.96 | 0.024 | 0.063015 | 3 0.010349 0.82812 ↴ |
| 0.00069607 | | | | | | |
| 3 | Accept | 0.082 | 98.183 | 0.024 | 0.02408 | 1 0.015676 0.96183 ↴ |
| 1.8237e-09 | | | | | | |
| Warning: Training stopped at iteration 1413 because training loss is NaN. Predictions using the output network might contain NaN values. | | | | | | |
| 4 | Accept | 0.788 | 26.996 | 0.024 | 0.024004 | 2 0.23953 0.9636 ↴ |
| 0.00026711 | | | | | | |
| 5 | Best | 0.002 | 180.58 | 0.002 | 0.0028991 | 3 0.010001 0.92021 ↴ |
| 2.2381e-07 | | | | | | |
| 6 | Accept | 0.016 | 109.57 | 0.002 | 0.011571 | 1 0.010185 0.93102 ↴ |
| 1.0918e-10 | | | | | | |
| 7 | Accept | 0.028 | 98.339 | 0.002 | 0.015972 | 1 0.010011 0.97345 ↴ |
| 3.9357e-10 | | | | | | |
| 8 | Accept | 0.032 | 99.741 | 0.002 | 0.016016 | 1 0.010023 0.96028 ↴ |
| 2.9473e-10 | | | | | | |
| 9 | Accept | 0.206 | 151.26 | 0.002 | 0.0031885 | 3 0.010015 0.96093 ↴ |
| 1.4004e-06 | | | | | | |
| 10 | Accept | 0.002 | 176.49 | 0.002 | 0.0024941 | 3 0.010029 0.81018 ↴ |
| 4.4637e-10 | | | | | | |
| 11 | Accept | 0.004 | 142.36 | 0.002 | 0.0017986 | 2 0.010666 0.87562 ↴ |
| 1.8341e-10 | | | | | | |
| 12 | Accept | 0.018 | 99.429 | 0.002 | 0.023117 | 1 0.010554 0.80366 ↴ |
| 2.8041e-06 | | | | | | |


```

Warning: Training stopped at iteration 318 because training loss is NaN. Predictions using the output network might
contain NaN values.
| 25 | Accept | 0.804 | 10.249 | 0.002 | 0.019165 | 3 | 0.75477 | 0.97742 ↵
| 1.2587e-10 |                                |
| 26 | Accept | 0.798 | 183.18 | 0.002 | 0.019688 | 3 | 0.32761 | 0.80075 ↵
| 2.3147e-10 |                                |

Warning: Training stopped at iteration 764 because training loss is NaN. Predictions using the output network might
contain NaN values.
| 27 | Accept | 0.824 | 12.421 | 0.002 | 0.020218 | 1 | 0.36273 | 0.97689 ↵
| 7.7662e-05 |                                |
| 28 | Accept | 0.028 | 98.234 | 0.002 | 0.022121 | 1 | 0.023886 | 0.80753 ↵
| 1.4666e-08 |                                |
| 29 | Accept | 0.014 | 101.19 | 0.002 | 0.017244 | 1 | 0.019444 | 0.80918 ↵
| 1.0498e-08 |                                |
| 30 | Accept | 0.016 | 97.911 | 0.002 | 0.02126 | 1 | 0.020808 | 0.80476 ↵
| 1.8216e-10 |                                |

```

Optimization completed.

MaxObjectiveEvaluations of 30 reached.

Total function evaluations: 30

Total elapsed time: 3109.3925 seconds

Total objective function evaluation time: 3102.0219

Best observed feasible point:

| SectionDepth | InitialLearnRate | Momentum | L2Regularization |
|--------------|------------------|----------|------------------|
| 3 | 0.010001 | 0.92021 | 2.2381e-07 |

Observed objective function value = 0.002

Estimated objective function value = 0.068455

Function evaluation time = 180.5754

Best estimated feasible point (according to models):

| SectionDepth | InitialLearnRate | Momentum | L2Regularization |
|--------------|------------------|----------|------------------|
| | | | |

$$1 - 0.503e^{-1.0}$$

0.87758

0.01038

1

Estimated objective function value = 0.02126
 Estimated function evaluation time = 99.5195

acc 25dB =

1

acc 20dB =

0806

acc 15dB =

၁၇၃

acc 10dB

0270