

Detailed experimental results

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Please refer to parameter_settings.txt for parameter settings to get these typical results.

Results for PSGD with approximated Hessian-vector products are similar, and I do not show them here to keep our figures less crowded.

Totally, there are 12 plots as listed below.

A. data_model_criteria_cifar10_autoencoder_example

B. data_model_criteria_cifar10_lrelu_example

1) Raw test classification error rates:

2) Smoothed test classification error rates:

C. data_model_criteria_lstm_add_example

D. data_model_criteria_lstm_xor_example

1) In linear scale:

2) In log scale:

E. data_model_criteria_mnist_autoencoder_example

F. data_model_criteria_mnist_lrelu_example

1) Raw test classification error rates:

2) Smoothed test classification error rates:

G. data_model_criteria_rnn_add_example

H. data_model_criteria_rnn_xor_example

1) In linear scale:

2) In log scale:

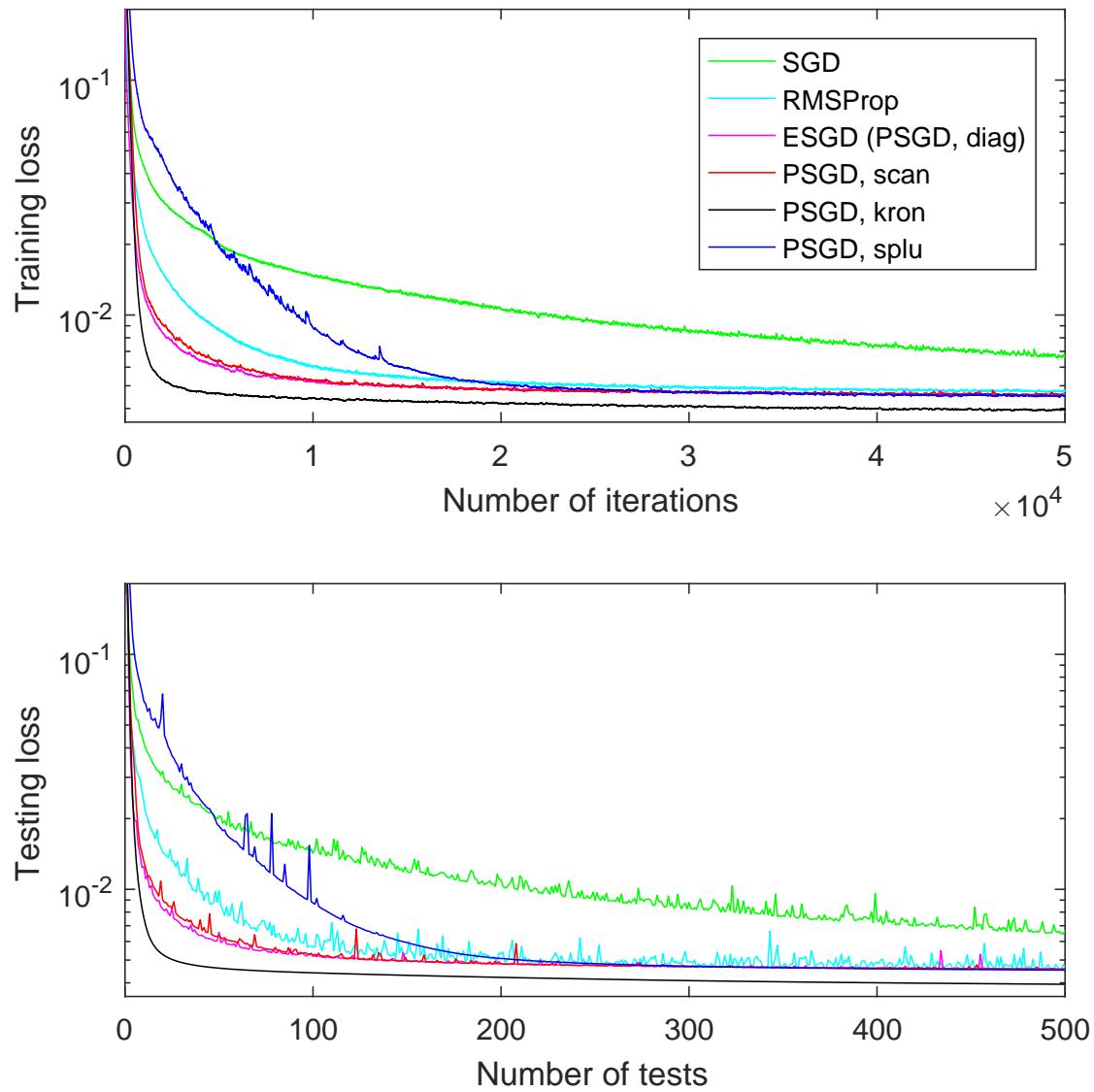


Fig. 1. data_model_criteria_cifar10_autoencoder_example

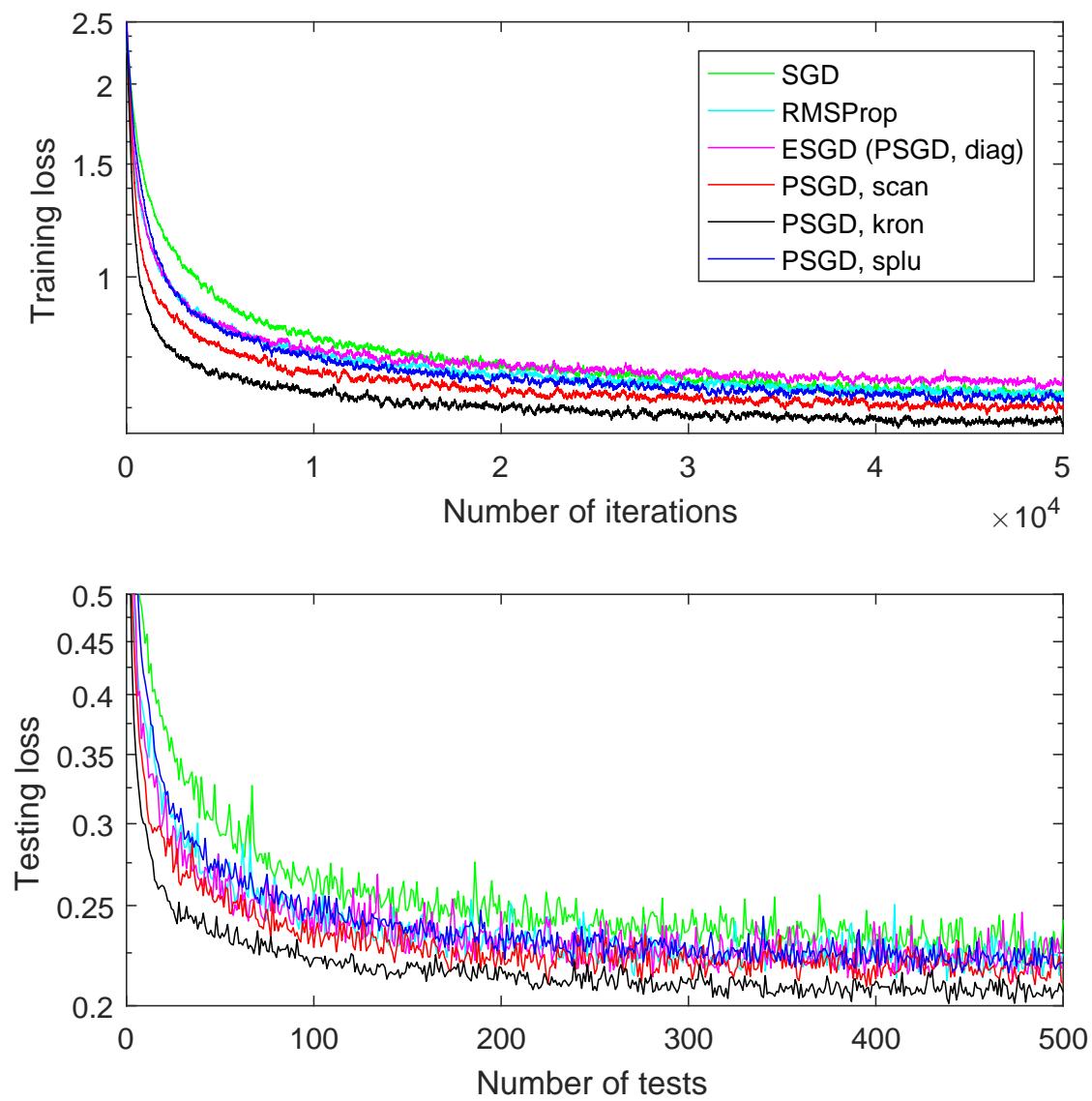


Fig. 2. `data_model_criteria_cifar10_lrelu_example`, raw test classification error rates

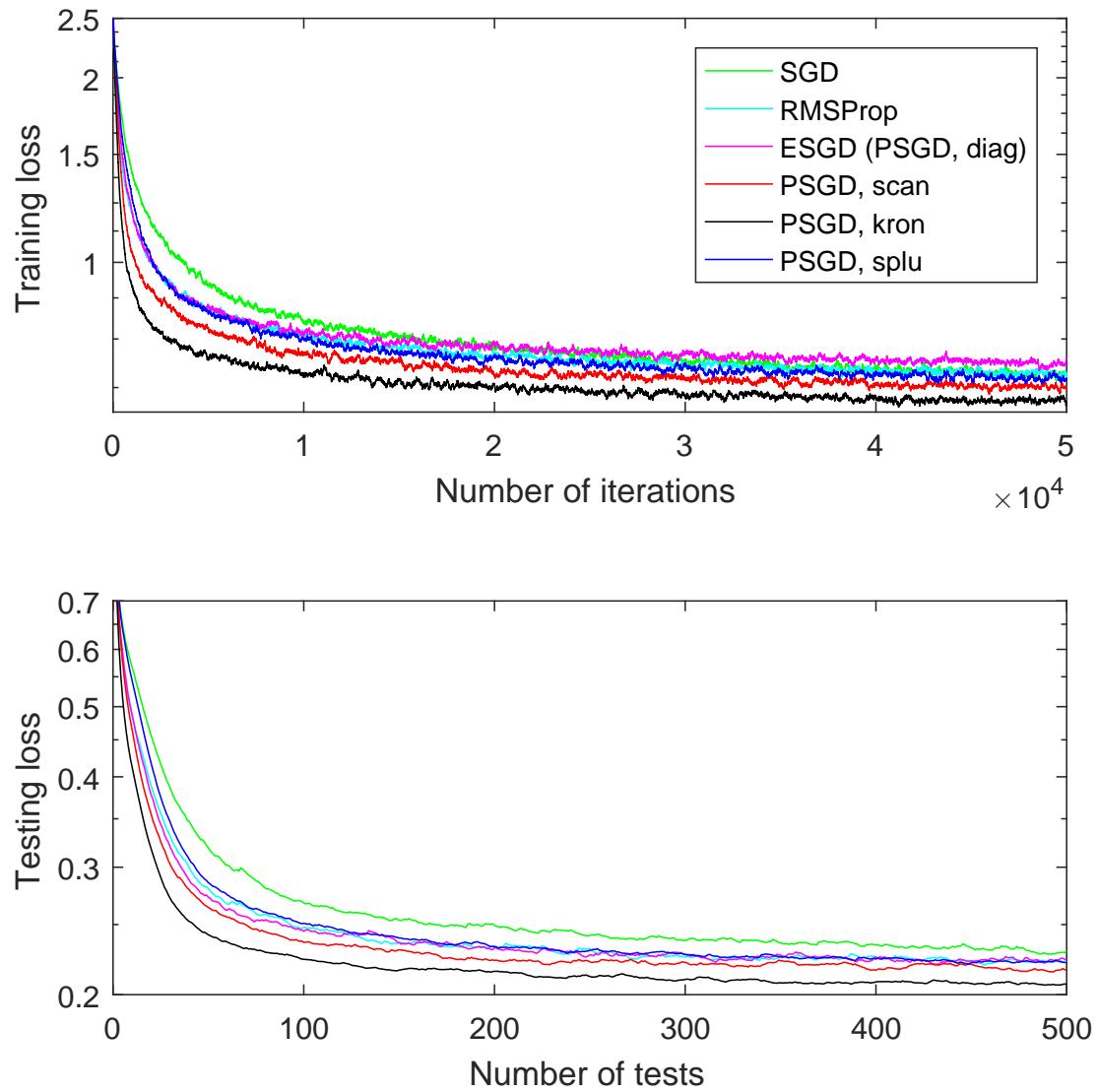


Fig. 3. `data_model_criteria_cifar10_lrelu_example`, smoothed test classification error rates

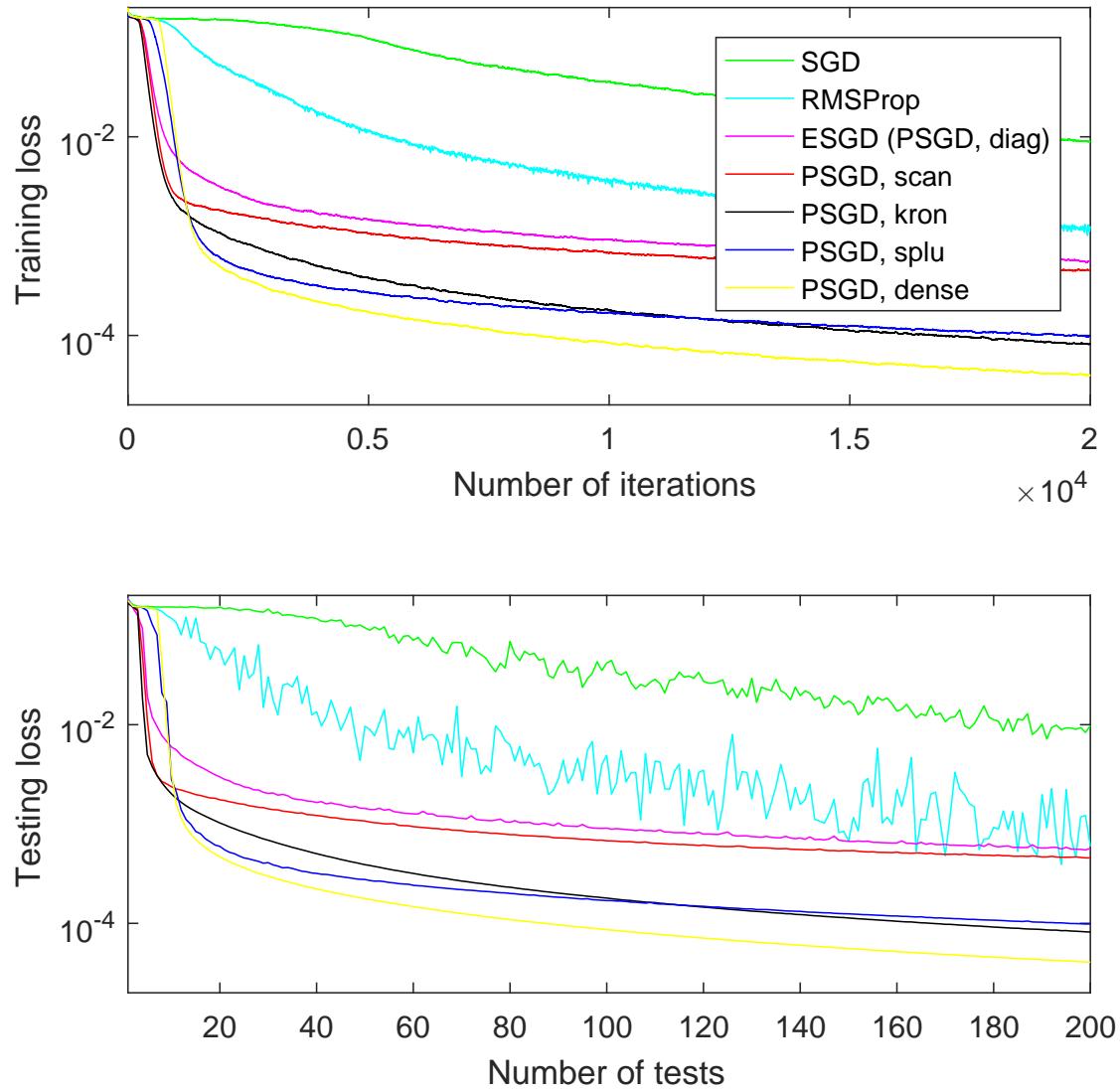


Fig. 4. data_model_criteria_lstm_add_example

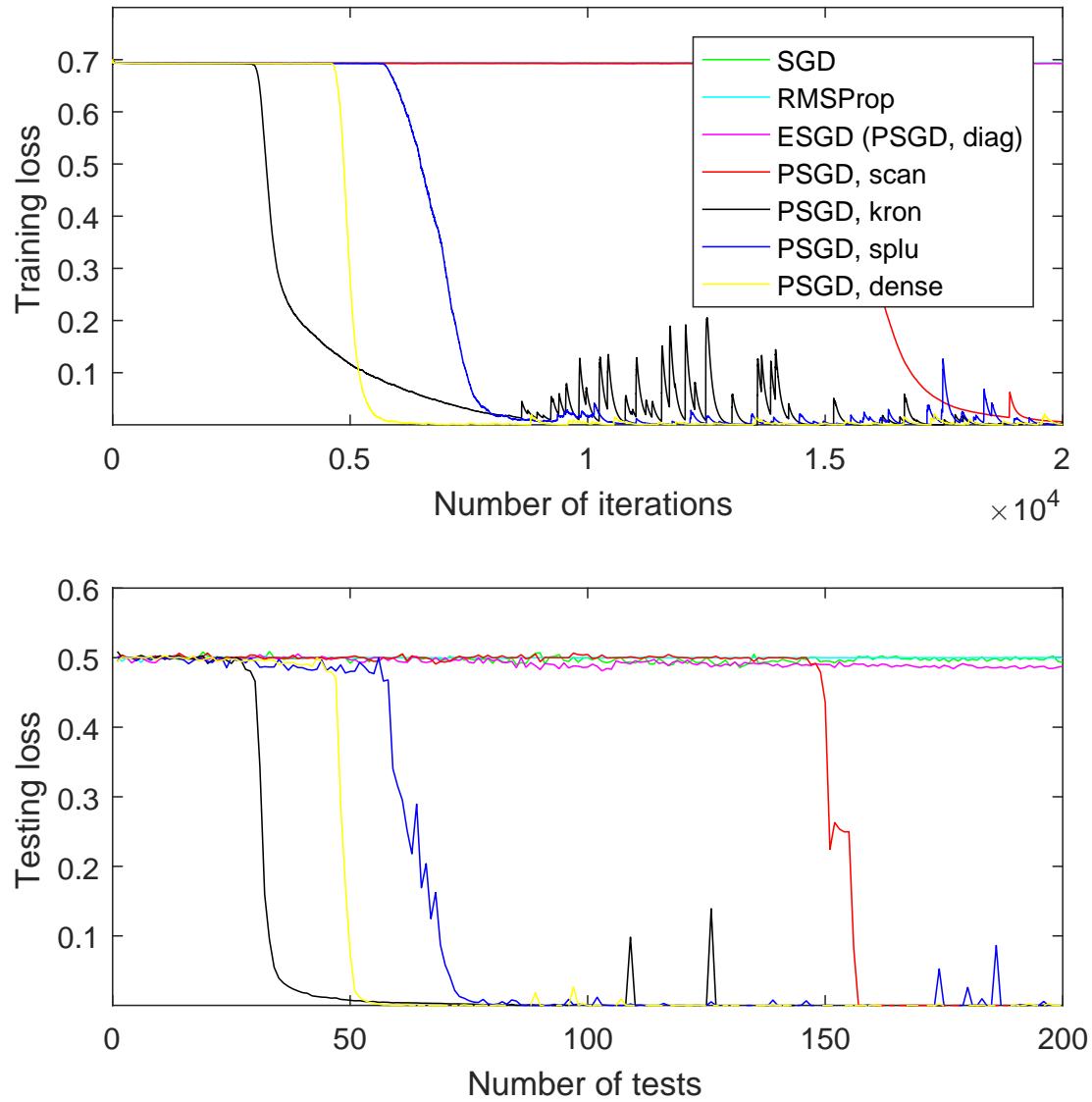


Fig. 5. data_model_criteria_lstm_xor_example, linear scale

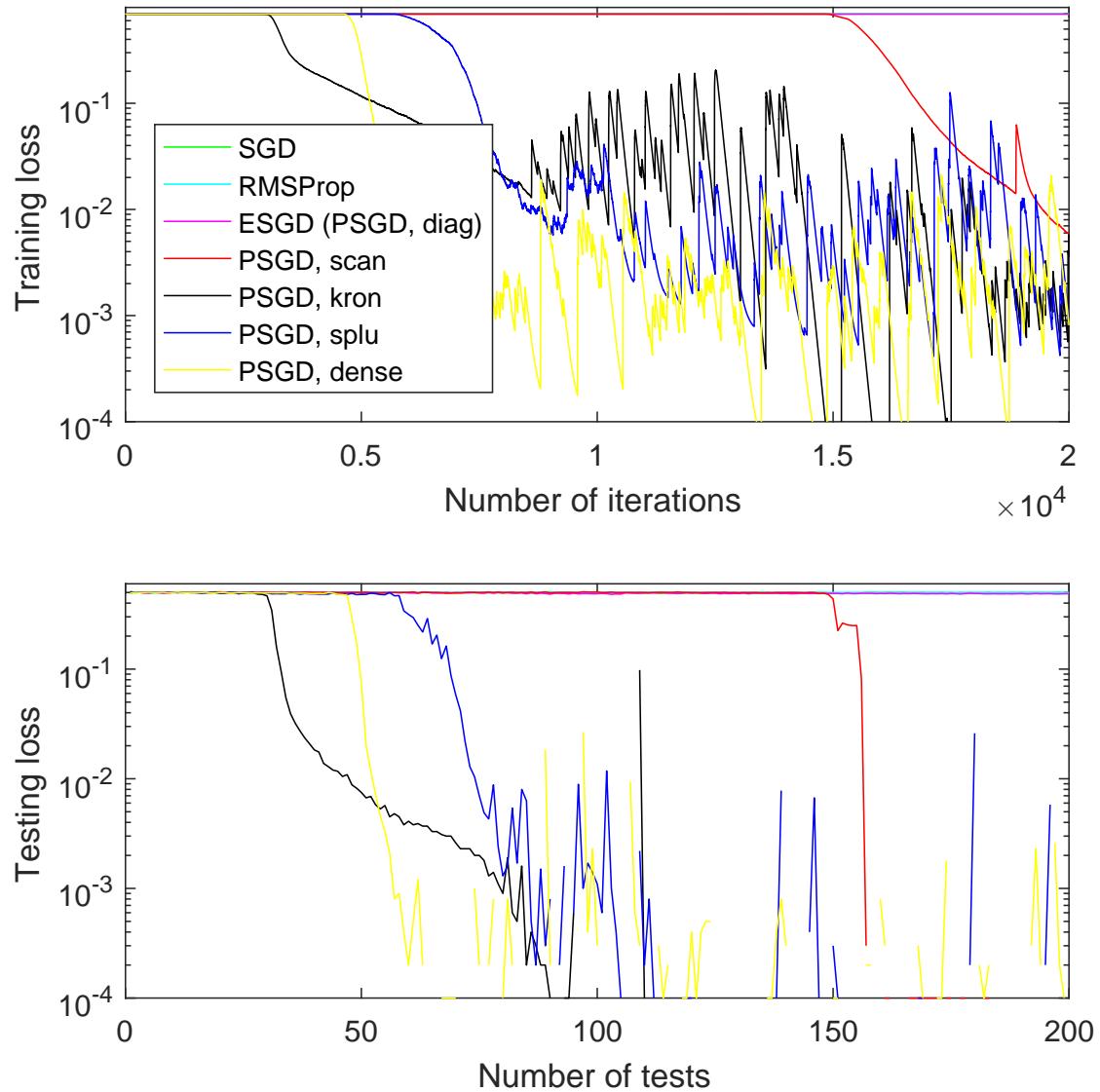


Fig. 6. `data_model_criteria_lstm_xor_example`, log scale

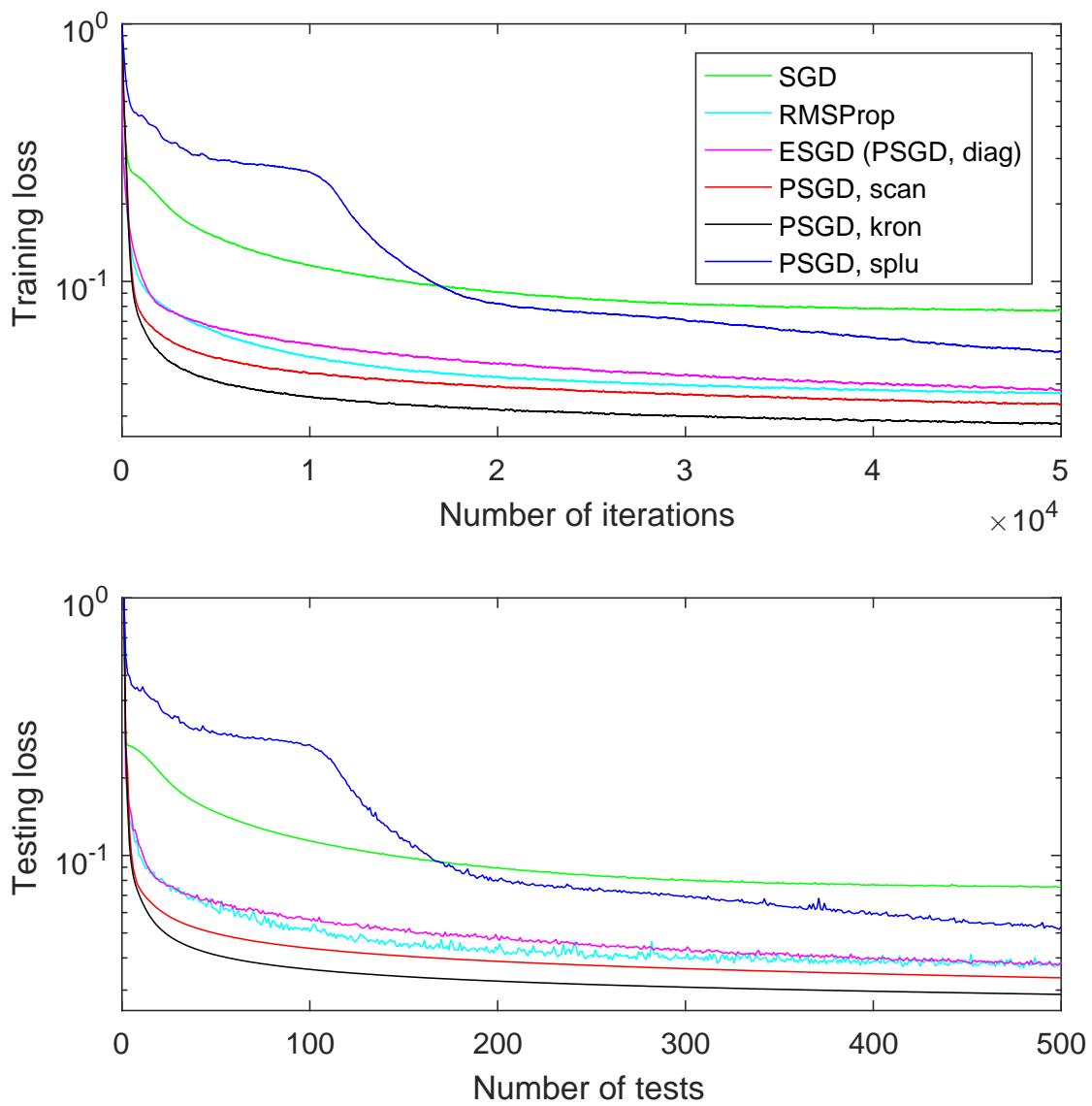


Fig. 7. data_model_criteria_mnist_autoencoder_example

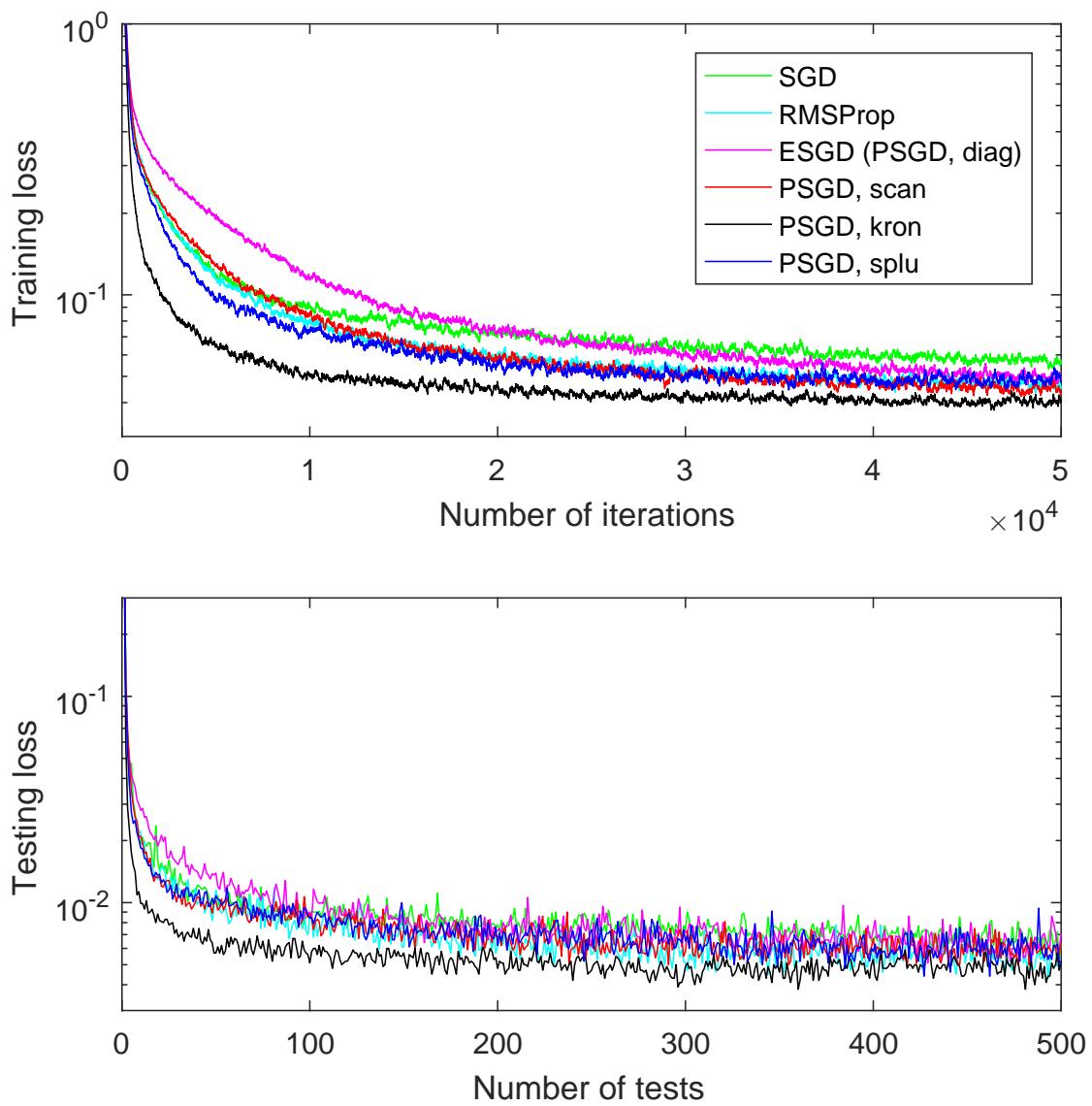


Fig. 8. `data_model_criteria_mnist_lrelu_example`, raw test classification error rates

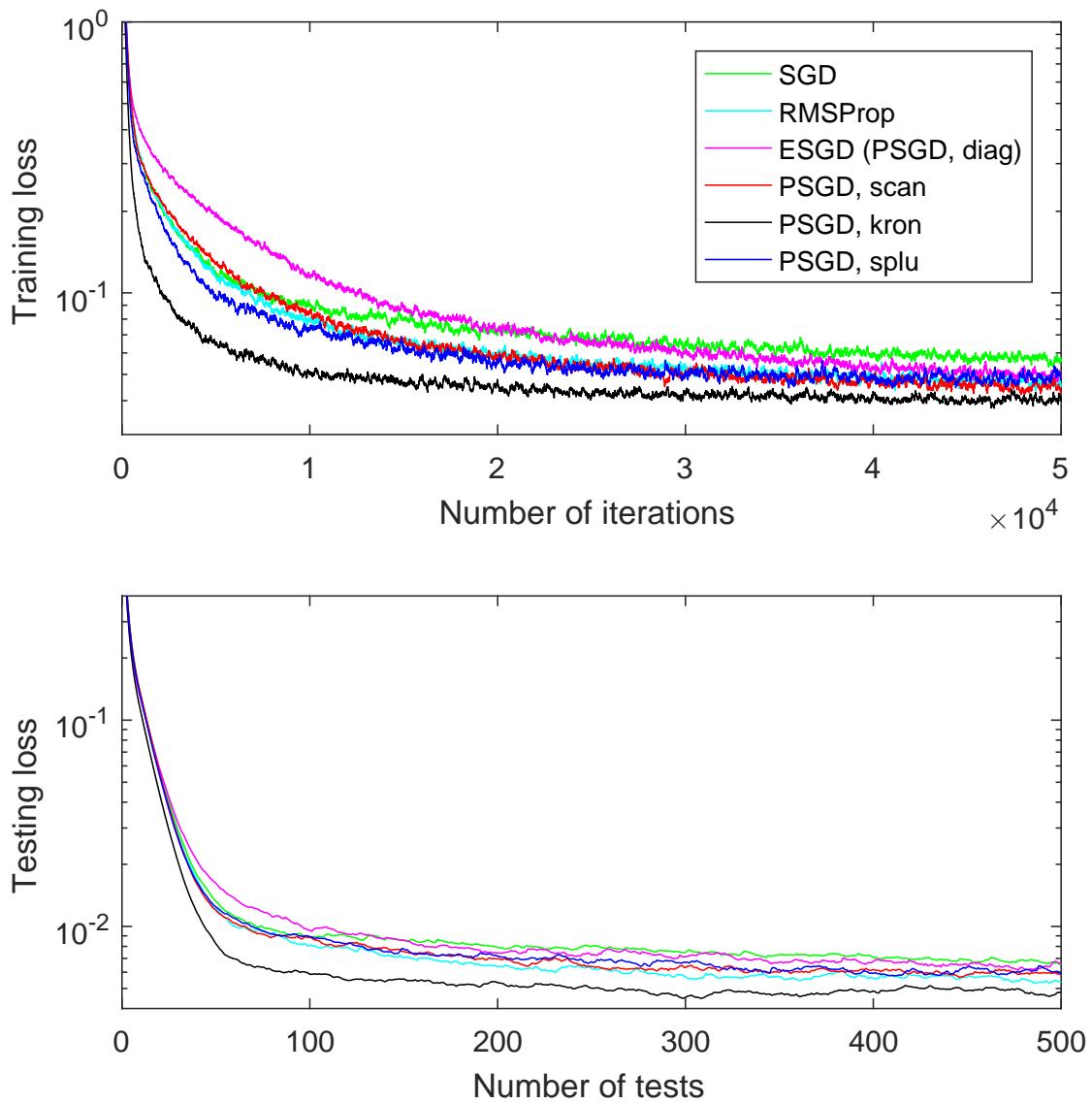


Fig. 9. `data_model_criteria_mnist_lrelu_example`, smoothed test classification error rates

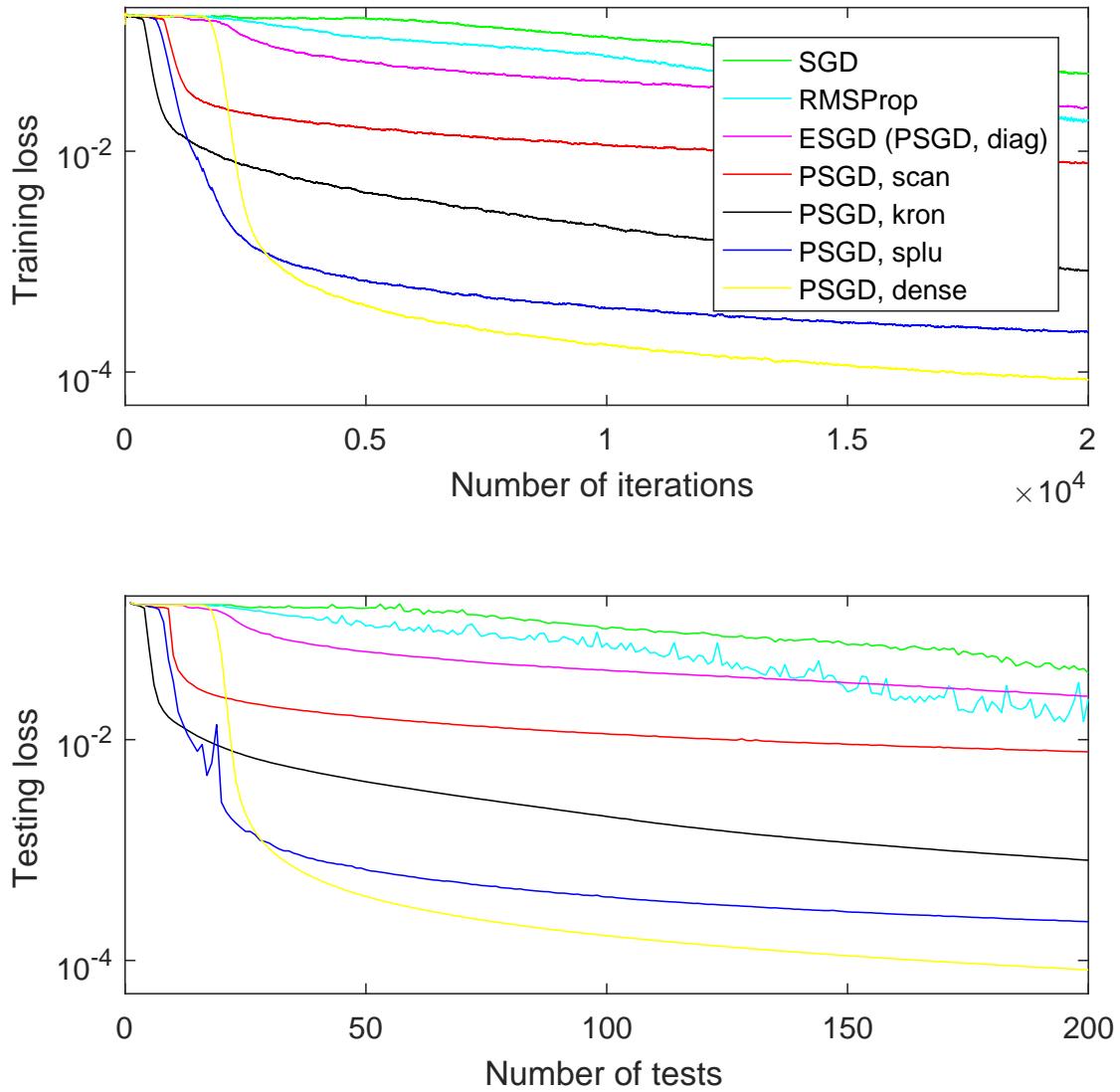


Fig. 10. `data_model_criteria_rnn_add_example`

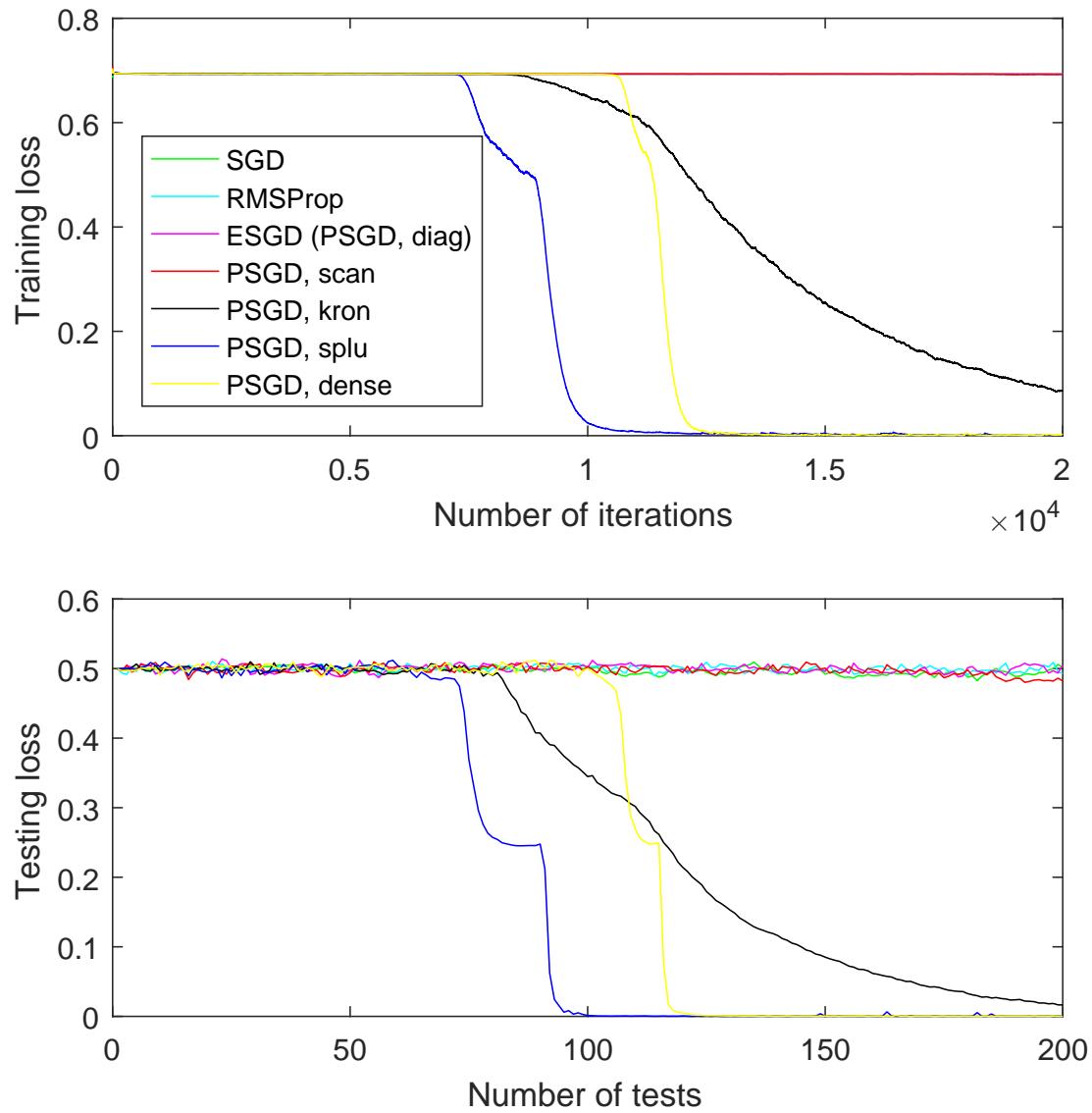


Fig. 11. `data_model_criteria_rnn_xor_example`, linear scale

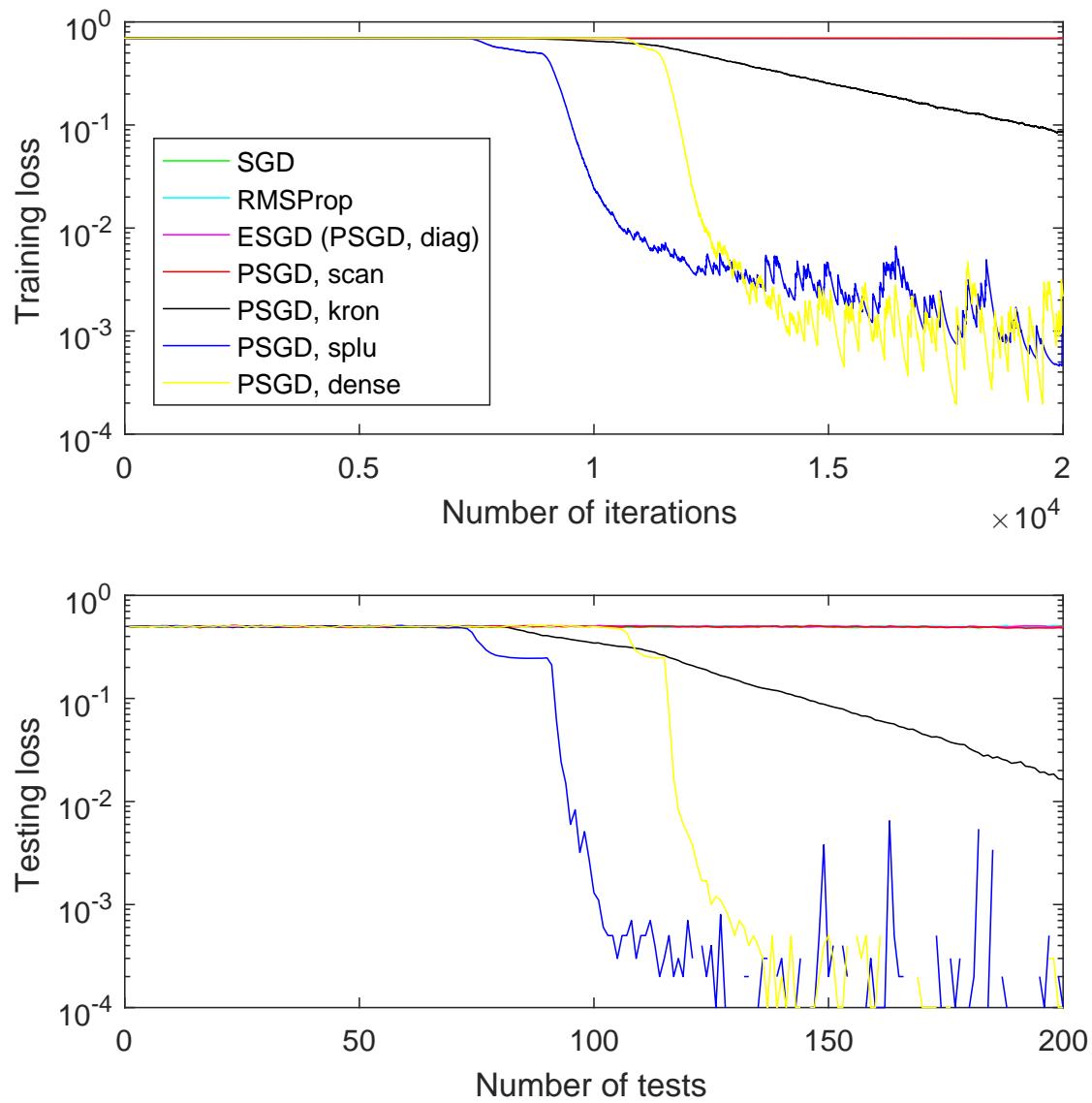


Fig. 12. `data_model_criteria_rnn_xor_example`, log scale