

# LSVI: Plots from extra experiments (rebuttal)

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April 1, 2025

## 1 Subsampling (Ref. 8cK4 and W5YG)

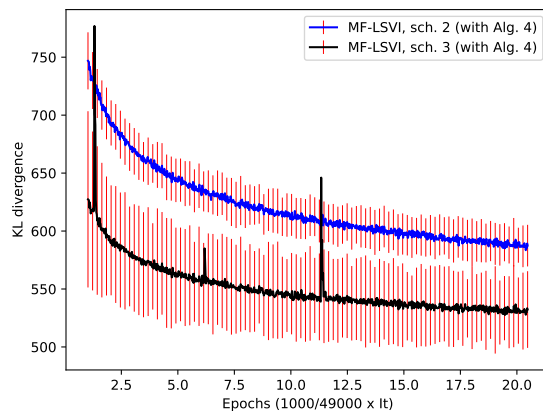


Figure 1: Logistic regression posterior with (mini-batch) subsampling, Census-income dataset ( $n \approx 49000$ ), diagonal (mean-field) covariance approximation, for MF-LSVI with schedules 2 and 3 (see supplement for details on schedules). KL loss vs iteration. Mean and one-standard deviation over 100 trials,  $N = 10^4$  samples.

## 2 Comparison with NGD (Refs. W5YG and 8cK4)

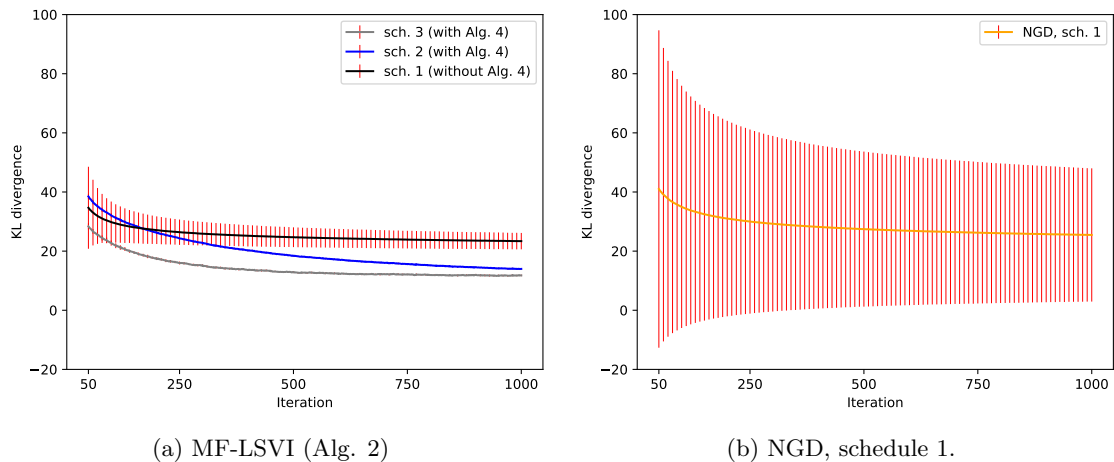


Figure 2: Logistic regression posterior, Sonar data, diagonal (mean-field) covariance approximation. Comparison of MF-LSVI (Alg. 2, with different schedules, left panel), with NGD (Schedule 1, right panel). (See the supplement for details on schedules.) NGD exhibits higher variance compared to MF-LSVI. Mean and one-standard deviation over 100 trials,  $N = 10^4$  samples. Truncated from iteration 50 for better readability.

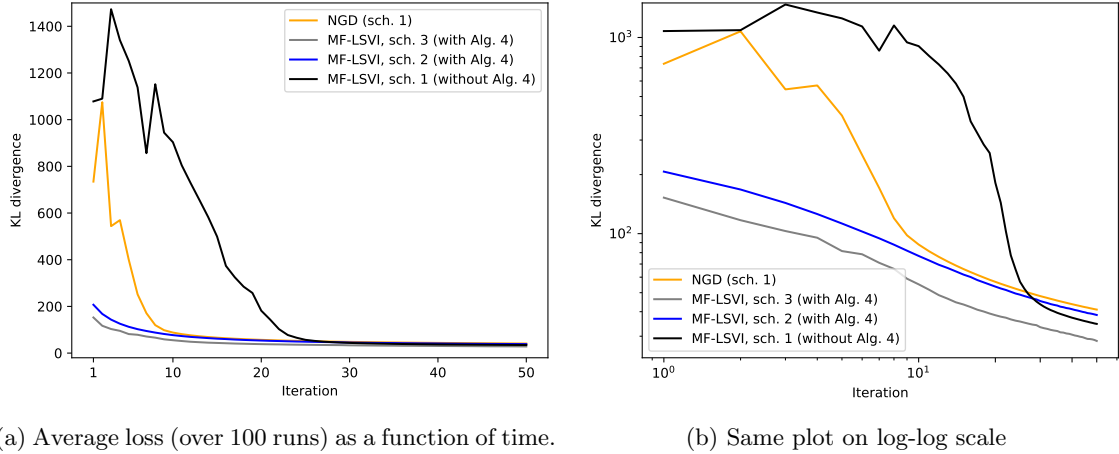


Figure 3: Logistic regression posterior, Sonar data, diagonal (mean-field) covariance approximation. Comparison of MF-LSVI (Alg. 2, with different schedules) with NGD. Mean 100 trials,  $N = 10^4$  samples.

### 3 Reporting misclassification rates (hBY5)

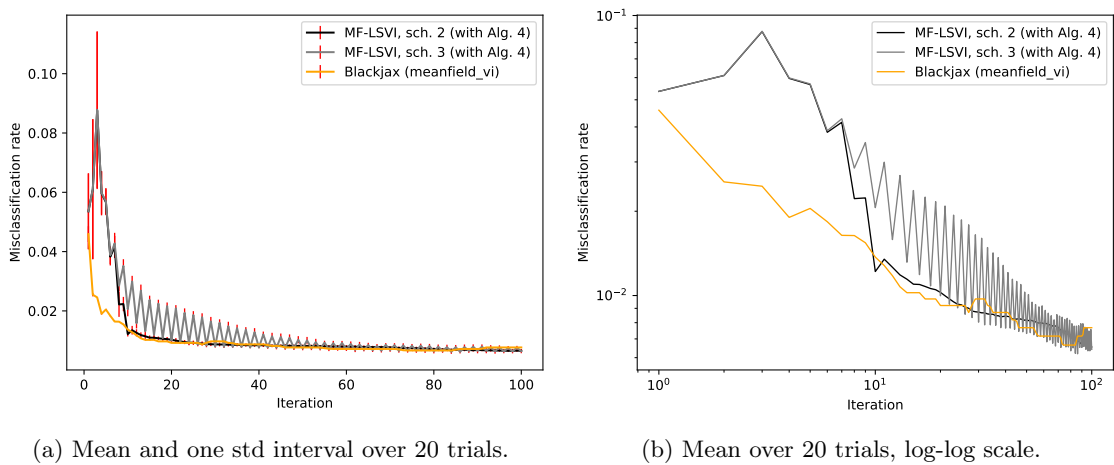


Figure 4: Misclassification rate for the MNIST dataset. Diagonal covariance approximation, MF-LSVI (Alg. 2) vs Blackjax mean-field VI,  $N = 10^4$  samples. Truncated to iteration 100 for better readability. Confidence intervals based on 20 independent runs.

### 4 Wall-clock time (hBY5)

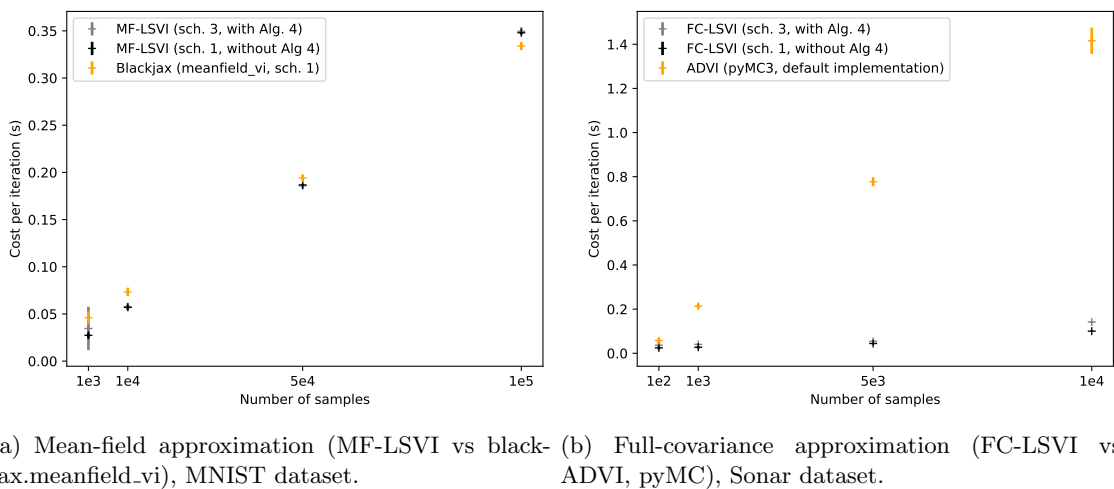


Figure 5: Logistic regression posterior. Wall-clock time per iteration. Means and one-standard deviation intervals, over 5 trials, and 100 iterations.