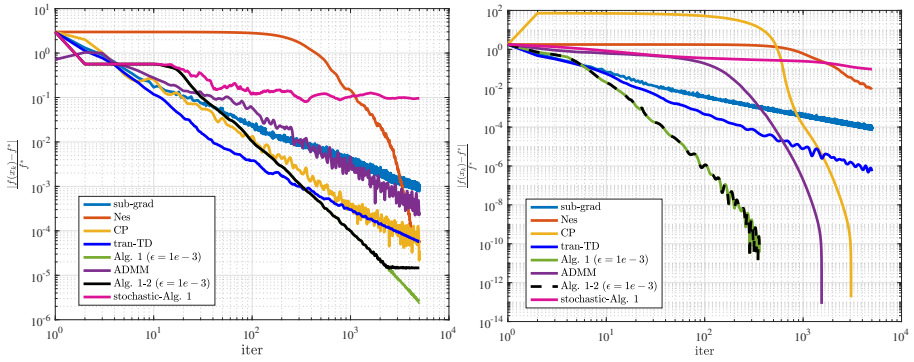
Here we present additional numerical experiments showcasing the performance of the proposed method in the case of regression problem (17) with respect to reviewers comments.

• Figure 1 contains plots for the regression problem (17) with $i = 1, 2$ and correlated data (setting similar to Fig 1 in the paper). All algorithms are initialized at the same randomly chosen point, which includes the stochastic version of Algorithm 1 as suggested by reviewer YmeS.

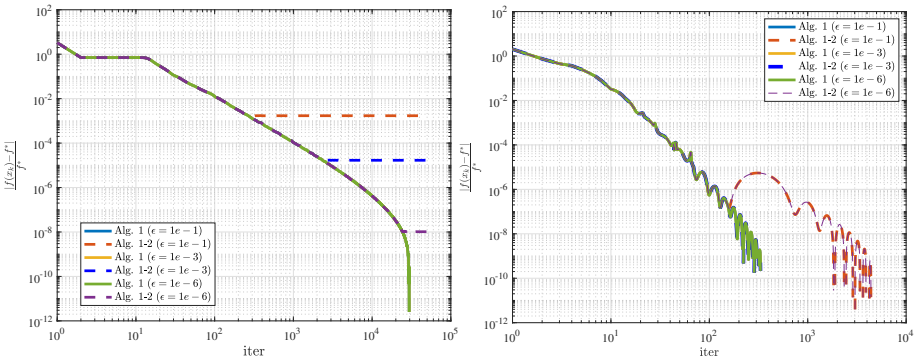
• Figure 2 contains plots for the regression problem (17) with $i = 1, 2$ and correlated data (setting similar to Fig 1 in the paper). All algorithms are initialized at the same randomly chosen point. This includes comparisons of different cases of Algorithm 1 with various values of ε, as well as the case where the constant term ε/L_f^2 is dropped, as suggested by reviewer YmeS.

• Figure 3 contains plots for the regression problem (17) with $i = 1, 2$ and correlated data (setting similar to Fig 1 in the paper). All algorithms are initialized at the same randomly chosen point, which includes Algorithm 1 with different update rules for μ_k, as suggested by reviewer gzq4.



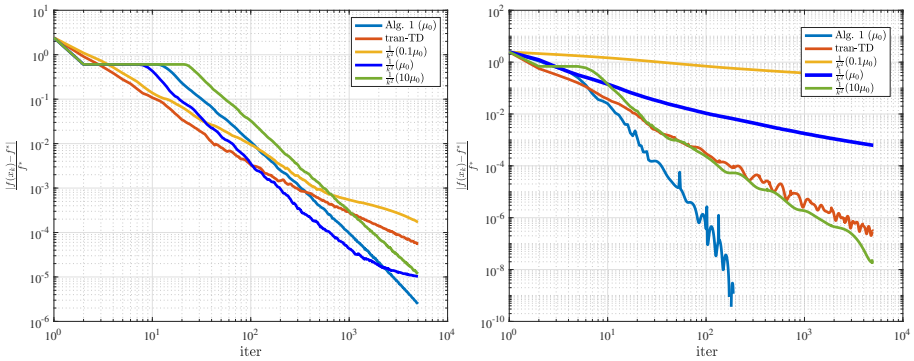
(a) ℓ_1-ℓ_1-regularized LASSO. (b) ℓ_2-ℓ_1-regularized LASSO.

Figure 1. Numerical results for regression problems with stochastic version of Algorithm 1.



(a) ℓ_1-ℓ_1-regularized LASSO. (b) ℓ_2-ℓ_1-regularized LASSO.

Figure 2. Numerical results for regression problems with different values of ε of Algorithm 1.



(a) ℓ_1-ℓ_1-regularized LASSO. (b) ℓ_2-ℓ_1-regularized LASSO.

Figure 3. Numerical results for regression problems with different update rule of Algorithm 1.