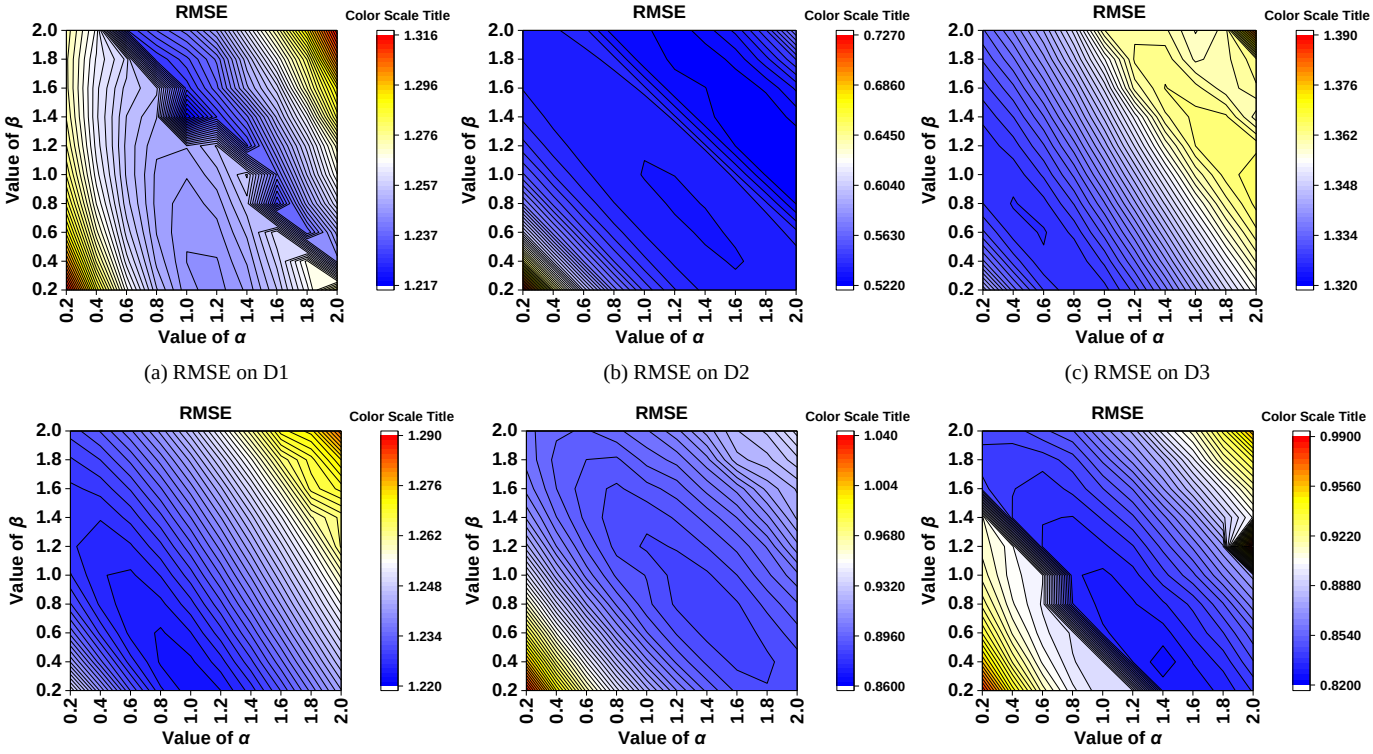
Adaptive Divergence-based Non-negative Latent Factor Analysis of High-Dimensional and Incomplete Matrices from Industrial Applications Supplementary File

Ye Yuan, *Member, IEEE*, and Xin Luo, *Senior Member, IEEE*, and MengChu Zhou, *Fellow, IEEE*

I. Introduction

This is the supplementary file for the paper entitled "*Adaptive Divergence-based Non-negative Latent Factor Analysis of High-Dimensional and Incomplete Matrices*". Note that in the manuscript we have cited all these supplementary figures.

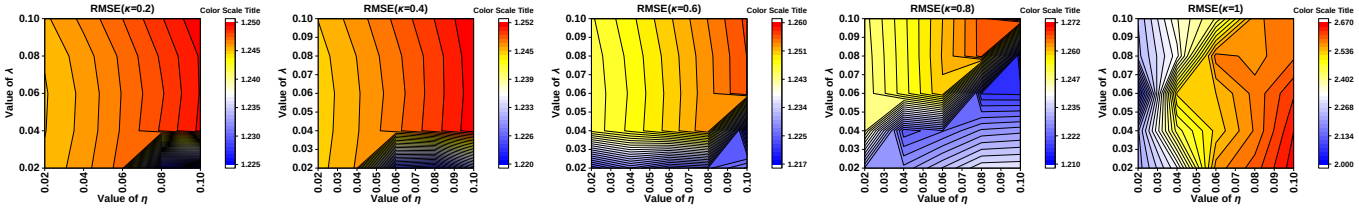
II. Figures



(a) RMSE on D1 (b) RMSE on D2 (c) RMSE on D3

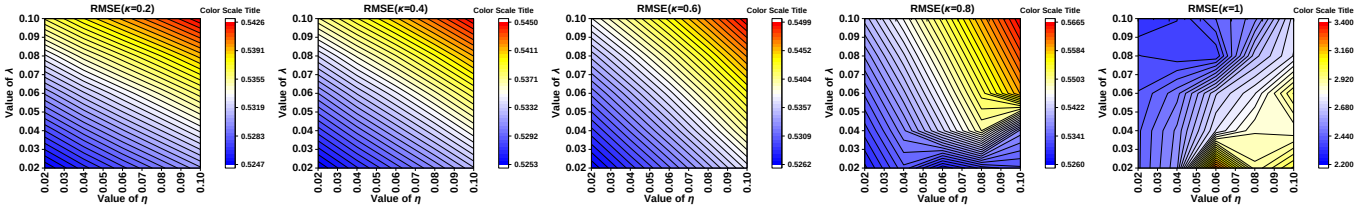
(d) RMSE on D4 (e) RMSE on D5 (f) RMSE on D6

Fig. S1. ADNL's RMSE as α and β vary.



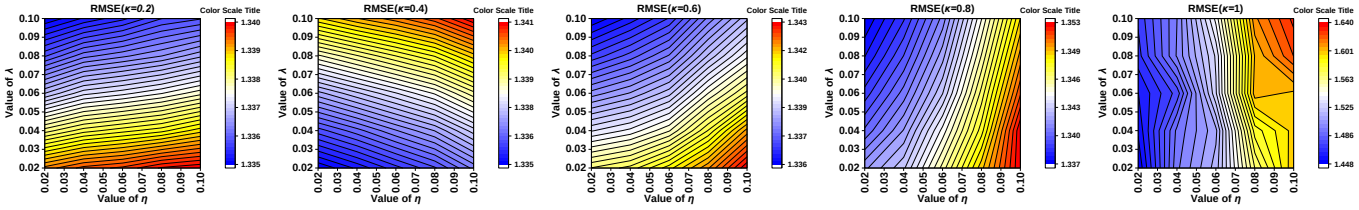
(a) (b) (c) (d) (e)

Fig. S2. ADNL's RMSE as η, λ, and κ vary on D1.



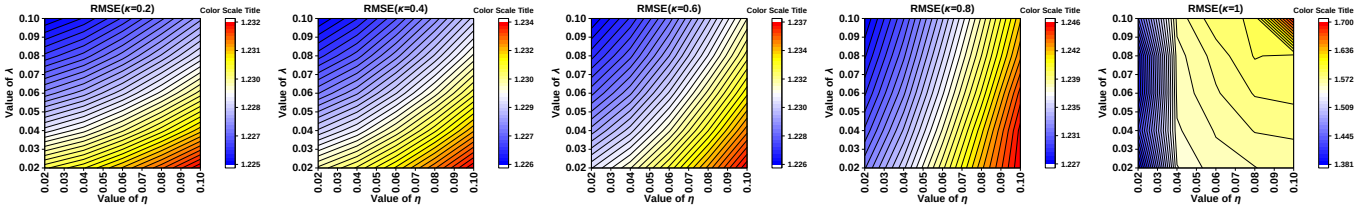
(a) (b) (c) (d) (e)

Fig. S3. ADNL's RMSE as η, λ, and κ vary on D2.



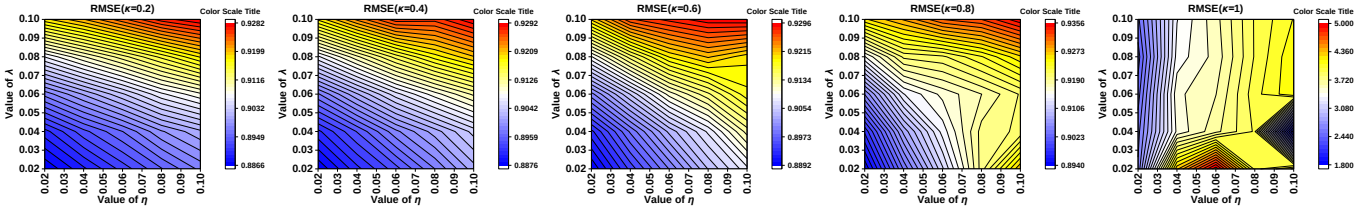
(a) (b) (c) (d) (e)

Fig. S4. ADNL's RMSE as η, λ, and κ vary on D3.



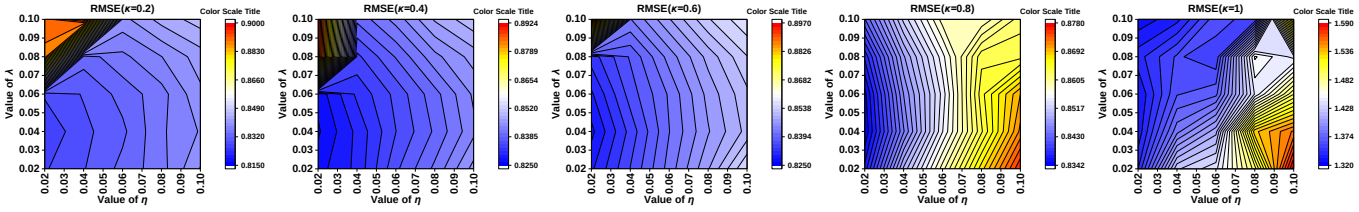
(a) (b) (c) (d) (e)

Fig. S5. ADNL's RMSE as η, λ, and κ vary on D4.



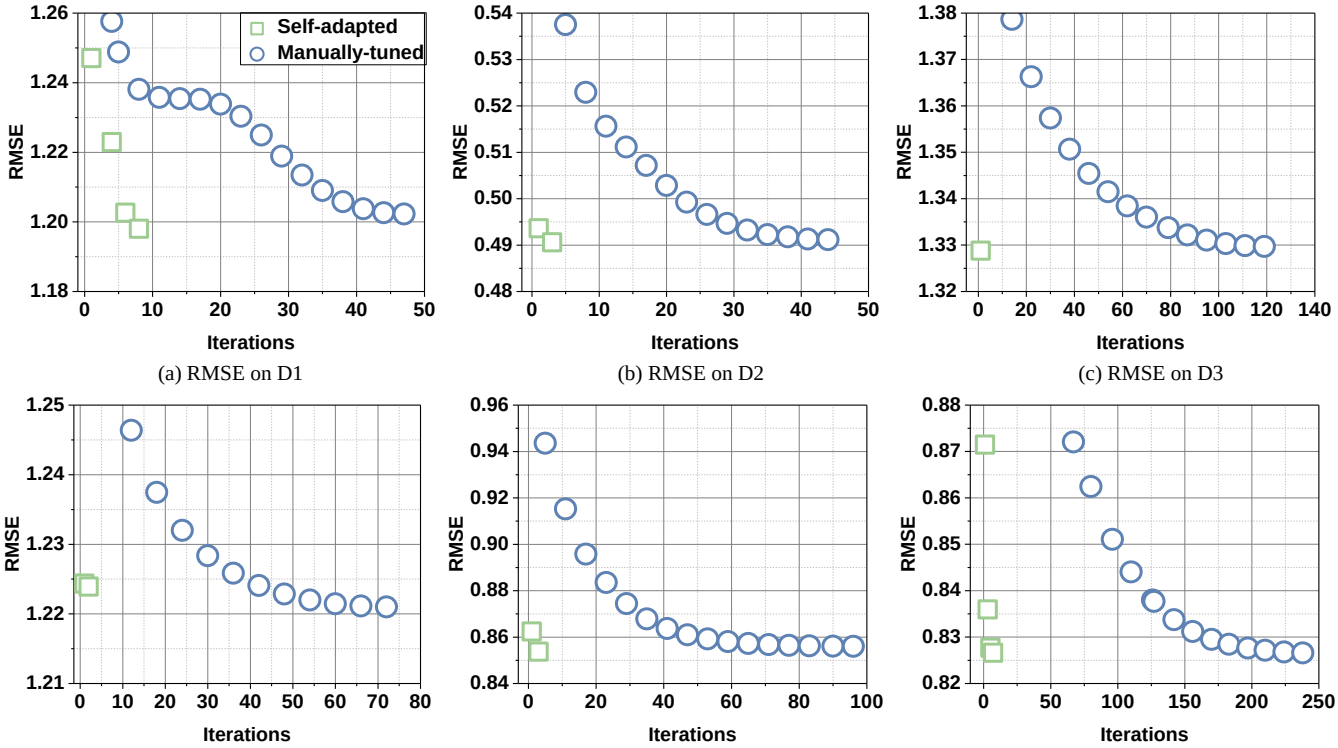
(a) (b) (c) (d) (e)

Fig. S6. ADNL's RMSE as η, λ, and κ vary on D5.



(a) (b) (c) (d) (e)

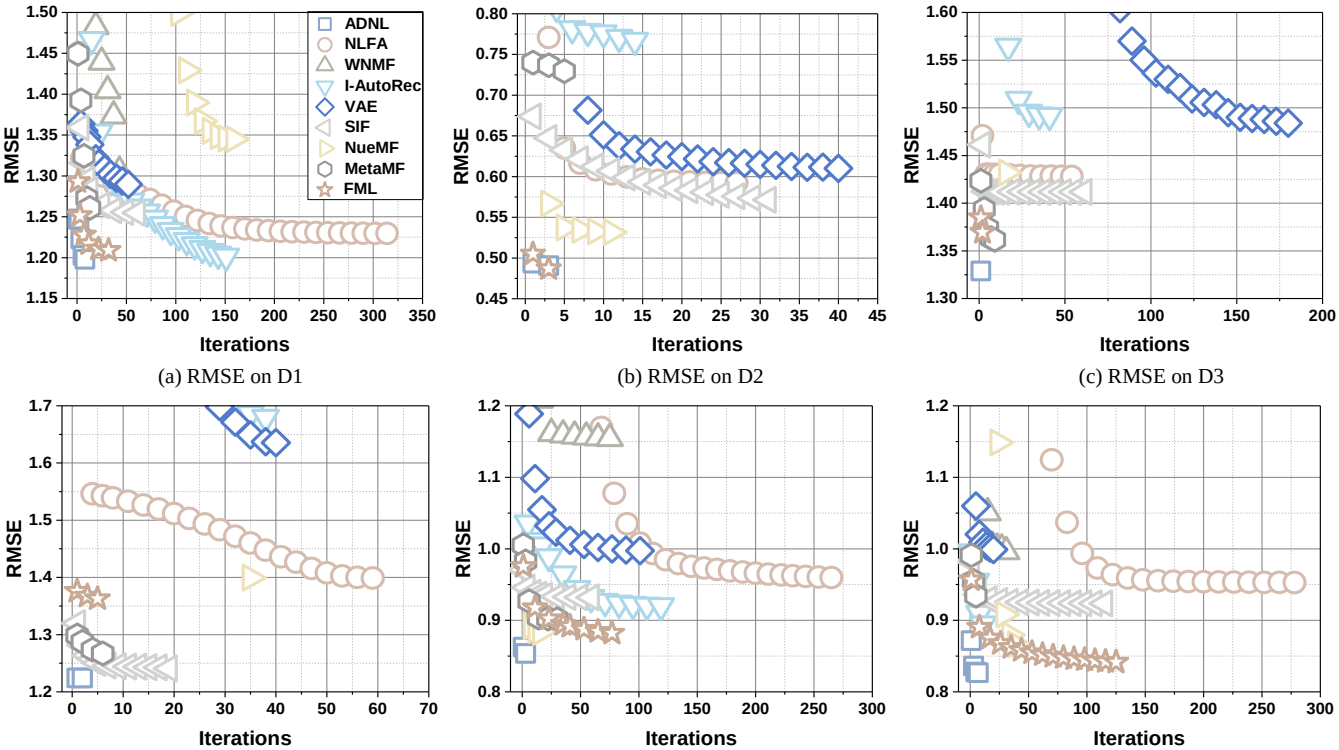
Fig. S7. ADNL's RMSE as η, λ, and κ vary on D6.



(a) RMSE on D1 (b) RMSE on D2 (c) RMSE on D3

(d) RMSE on D4 (e) RMSE on D5 (f) RMSE on D6

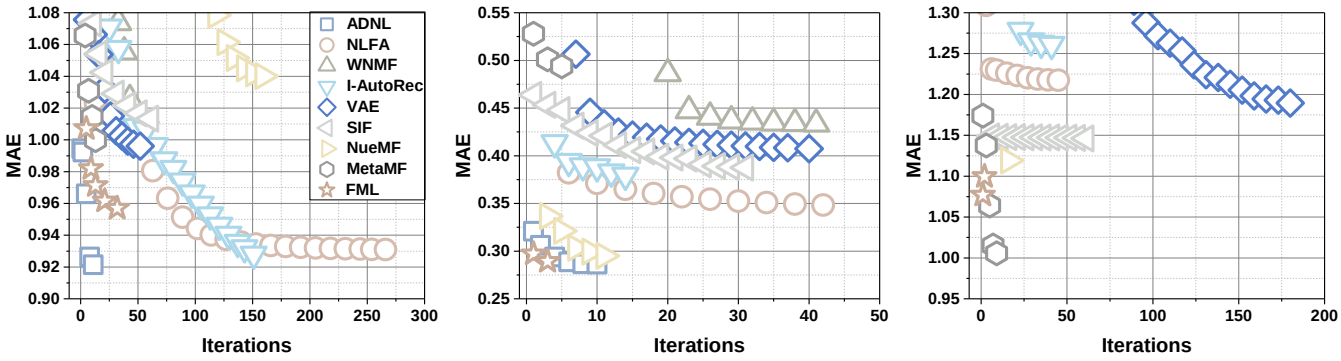
Fig. S8. Training curves of ADNL with self-adapted and manually-tuned hyper-parameters in RMSE. All panels share the legend in panel (a).



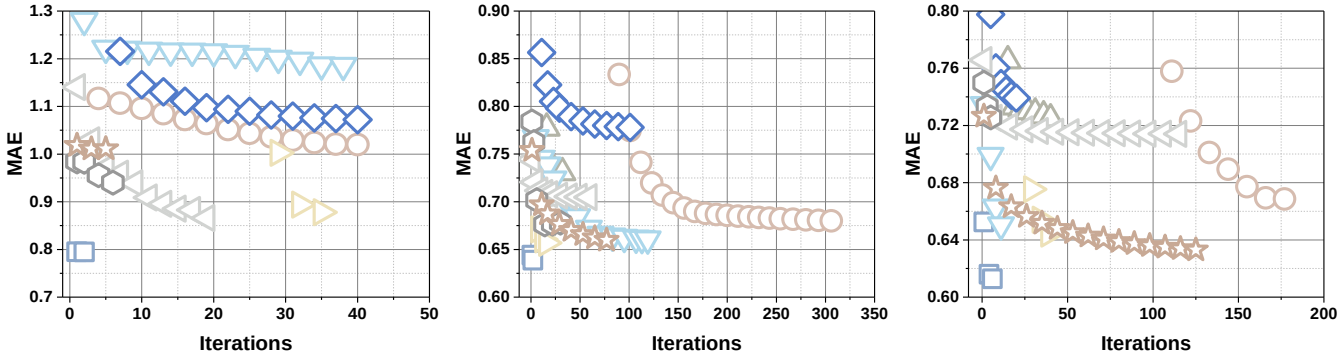
(a) RMSE on D1 (b) RMSE on D2 (c) RMSE on D3

(d) RMSE on D4 (e) RMSE on D5 (f) RMSE on D6

Fig. S9. Training curves of compared models in RMSE. All panels share panel (a)'s legend.



(a) MAE on D1 (b) MAE on D2 (c) MAE on D3



(d) MAE on D4 (e) MAE on D5 (f) MAE on D6

Fig. S10. Training curves of compared models in MAE. All panels share panel (a)'s legend.