A Novel Dual-Loop-Controlled Latent Factor Analysis Model for Highly-Efficient Representation Learning to High-Dimensional and Incomplete Matrices: Supplementary File

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I. Introduction

THIS is the supplementary file for paper entitled *"A Novel Dual-Loop-Controlled Latent Factor Analysis Model for Highly-Efficient Representation Learning to High-Dimensional and Incomplete Matrices"*. It provides Table S1 for hyperparameter settings of each competitor.

II. Hyperparameter Settings

TABLE S1
HYPERPARAMETER SETTINGS FOR COMPETITORS

Abbr.	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**	**M8**	**M9**	**M10**
D1	η=2e-2, λ=7e-1, K_P=5e-1, K_I=5e-4, K_D=5e-4	η=2e-2, λ=7e-1, K_P=5e-5, K_D=5e-5	η=2e-2, λ=7e-1	η=9e-4, λ=9e-1, β=9e-1	η=9e-4, λ=9e-1, β=9e-1	η=9e-1, λ=8e-1, ϵ=1e-8	η=8e-3, λ=7e-1, β=9e-1, ϵ=1e-8	η=3e-2, λ=9e-1, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8	η=5e-2, λ=8e-1, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8
D2	η=3e-2, λ=4e-2, K_P=5e-1, K_I=5e-4, K_D=5e-2	η=3e-2, λ=4e-2, K_P=5e-5, K_D=5e-3	η=3e-2, λ=4e-2	η=3e-3, λ=4e-2, β=9e-1	η=3e-3, λ=4e-2, β=9e-1	η=8e-2, λ=4e-2, ϵ=1e-8	η=1e-3, λ=4e-2, β=9e-1, ϵ=1e-8	η=9e-3, λ=7e-2, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8	η=6e-3, λ=4e-2, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8
D3	η=8e-3, λ=3e-1, K_P=5e-1, K_I=5e-4, K_D=5e-4	η=8e-3, λ=3e-1, K_P=5e-4, K_D=5e-4	η=8e-3, λ=3e-1	η=9e-4, λ=3e-1, β=9e-1	η=9e-4, λ=3e-1, β=9e-1	η=1e-1, λ=3e-1, ϵ=1e-8	η=4e-3, λ=4e-2, β=9e-1, ϵ=1e-8	η=7e-3, λ=3e-1, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8	η=9e-3, λ=3e-1, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8
D4	η=2e-2, λ=9e-2, K_P=5e-1, K_I=5e-4, K_D=5e-1	η=2e-2, λ=9e-2, K_P=5e-4, K_D=5e-4	η=2e-2, λ=9e-2	η=2e-3, λ=9e-2, β=9e-1	η=2e-3, λ=9e-2, β=9e-1	η=5e-2, λ=3e-1, ϵ=1e-8	η=5e-3, λ=2e-1, β=9e-1, ϵ=1e-8	η=8e-3, λ=3e-1, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8	η=8e-3, λ=3e-1, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8
D5	η=2e-2, λ=8e-1, K_P=5e-1, K_I=5e-4, K_D=5e-1	η=2e-2, λ=8e-1, K_P=5e-4, K_D=5e-4	η=2e-2, λ=8e-1	η=9e-4, λ=9e-1, β=9e-1	η=9e-4, λ=9e-1, β=9e-1	η=4e-1, λ=6e-1, ϵ=1e-8	η=9e-3, λ=8e-1, β=9e-1, ϵ=1e-8	η=2e-2, λ=9e-1, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8	η=4e-2, λ=9e-1, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8
D6	η=8e-3, λ=5e-2, K_P=5e-1, K_I=5e-3, K_D=5e-5	η=8e-3, λ=5e-2, K_P=5e-5, K_D=5e-4	η=8e-3, λ=5e-2	η=5e-4, λ=9e-2, β=9e-1	η=9e-4, λ=6e-2, β=9e-1	η=3e-2, λ=1e-2, ϵ=1e-8	η=9e-4, λ=6e-2, β=9e-1, ϵ=1e-8	η=8e-3, λ=5e-2, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8	η=9e-3, λ=6e-2, β_1=9e-1, β_2=9.99e-1, ϵ=1e-8