

## File List

data:

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u1base.mat–u5base.mat	%training data sets of ml–100k
u1test.mat–u5test.mat	%test data sets of ml–100k
uabase.mat–uabase.mat	%training data sets of ml–100k
ubtest.mat–ubtest.mat	%test data sets of ml–100k
R.mat	%data for comparison with (\cite{Huang2018Rating})
ratings	%data for predictmyKBPSDpcts_netf.m
netfset.mat	%the data sets for the experiments on Netflix
netfpct_us.mat	%experimental results of dependence on the percentage
netfpct_us1.mat	%experimental results of dependence on the percentage
netfpct_it.mat	%experimental results of dependence on the percentage
netfpct_it1.mat	%experimental results of dependence on the percentage
param_rrs_us.mat	%influence of weight parameters r
param_rrs_it.mat	% influence of weight parameters r
param_pct_rrs_us.mat	%influence of weight parameters r
param_pct_rrs_it.mat	%influence of weight parameters r
param_beta_us.mat	%influence of parameters \beta
param_beta_it.mat	% influence of parameters \beta
param_pct_beta_us.mat	%influence of parameters \beta
param_pct_brta_it.mat	%influence of parameters \beta
CPUtime.mat	%results of KBPSDvsKB.m
bestparameter.mat	%results of KBPSDvsKB.m
KBPSD.mat	%results of KBPSDvsKB.m
KB.mat	%results of predictmyKB.m
PSD.mat	%results of predictmyKBPSD.m
KBnetf	%results of predictmyKB_netf.m
PSDnetf	%results of predictmyKBPSD_netf.m
netfpct_it.mat	%results of predictmyKBPSDpcts_netf.m
netfpct_it1.mat	%results of predictmyKBPSDpcts_netf.m
netfpct_us.mat	%results of predictmyKBPSDpcts_netf.m
netfpct_us1.mat	%results of predictmyKBPSDpcts_netf.m

functions:

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GetTestSet1.m	%create test sets on Netflix
GKas.m	%build graph, kernel Gram matrix
KernelGram.m	%create kernel Gram matrix
Simxy.m	%calculate measure of synergy

AdjustUI.m	%adjust the ratings matrix
KBreconstructor.m	%reconstructor with k-bandlimited
preprocess.m	%preprocess the rating matrix
extremsimilarity.m	%compute the extreme similarity
Feavec.m	%find feature vector
my_psd_estimate.m	%estimate PSD

Experiment code:

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predictmyKBPSD.m	%experiment on ml-100k
predictmyKB.m	%experiment on ml-100k by (\cite{Yang2020A})
predictmyKBPSDforcomparison	%experiment for comparison with (\cite{Huang2018Rating})
predictmyKBPSD_netf.m	%experiment on netflix
predictmyKB_netf.m	%experiment on netflix by (\cite{Yang2020A})
KBPSDvsKB.m	% experiment for comparison with (\cite{Yang2020A})
predictmyKBPSDpcts_netf.m	%dependence on the percentage
parameters_rrs.m	%influence of weight parameters $r$ on diverse data sets
parameters_pct_rrs.m	%influence of weight parameters $r$ on sparsity of data
parameters_beta.m	%influence of parameters $\beta$ on diverse data sets
parameters_pct_beta.m	%influence of parameters $\beta$ on sparsity of data