

## LVC 1 - Glossary of Notations

$L_{ij}$  = Likelihood of  $i^{th}$  user matching with  $j^{th}$  item in the user-item interaction matrix

$L_i$  = The average of observed entries in row  $i$  of the user-item interaction matrix

$n_i$  = The number of observed entries in row  $i$  of the user-item interaction matrix

$L_j$  = The average of observed entries in column  $j$  of the user-item interaction matrix

$n_j$  = The number of observed entries in column  $j$  of the user-item interaction matrix

$x_i$  = Features of the  $i^{th}$  user

$y_j$  = Features of the  $j^{th}$  item

$M$  = The matrix where each column is a unique word and each row is a document and the entries represent the frequency of the  $j^{th}$  word appearing in the  $i^{th}$  document