

# THE MOVIE RECOMMENDER SYSTEM

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- After rating, recommend some movies to the user taking her/his ratings into account.

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- It is not, however, possible to modify the movie set in our implementation.

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- So we use the famous  $k$ -nearest neighbor algorithm.
- What does **like** means? We need a **similarity measure** here...

# Similarity measure



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- $f_{10}$  is the amount of all movies seen by the user  $U_i$ ,
- $f_{11} = |M|$  is the amount of all movies seen by **both**  $U_j$  and  $U_i$ .

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- $r_x(m)$  gives the rating score for the movie  $m$  by user  $U_x$ .
- $|r_i(m) - r_j(m)|$  is the integer within interval  $[0, 4]$ .

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So we use the Jaccard coefficient, but we penalize the similarity at those movies that have drastically different rating scores and we do not penalize at all those movies that have the same scores (as given by the two users, whose similarity is measured).