## RECUPERACIÓ DE LA INFORMACIÓ (REIN) Formulari I

$$f(r) = \frac{k}{r^{\alpha}} = k * r^{-\alpha}$$

$$d = k_1 * N^{\beta}$$

$$tf\text{-}idf(d,t) = \frac{f_{d,t}}{\max_{j \in d} f_{d,j}} * \log \left(\frac{D}{df_t} + 1\right)$$

Nota: el +1 no el fem servir en els nostres càlculs manuals

$$sim(d1, d2) = \frac{d1 \cdot d2}{|d1||d2|} = \frac{d1}{|d1|} \cdot \frac{d2}{|d2|}$$

$$\mathit{Recall} = \frac{|\mathcal{R} \cap \mathcal{A}|}{|\mathcal{R}|}$$

$$Precision = \frac{|\mathcal{R} \cap \mathcal{A}|}{|\mathcal{A}|}$$

## Regla de Rocchio:

$$q' = \alpha * q + \beta * \frac{1}{|R|} * \sum_{d \in R} d - \gamma * \frac{1}{|NR|} * \sum_{d \in NR} d \quad (\alpha > \beta > \gamma \ge 0)$$

## PageRank:

$$p_i = \sum_{j \to i} \frac{p_j}{out(j)}$$

$$\sum_{i=1}^{n} p_i = 1$$

$$G = \lambda M + (1 - \lambda)\frac{1}{n}J$$
  $t.q.$   $0 < \lambda < 1$