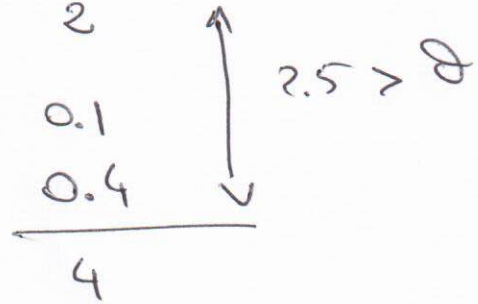


WAND - algorithm

$t_1 \rightarrow \dots 5, 6, 7, 8, 11 \quad 0.4$
 $t_2 \rightarrow \dots 2, 3, 5, 7, 8, 11 \quad 2$
 $t_3 \rightarrow \dots 8, 13, 15 \quad 4$
 $t_4 \rightarrow \dots 4, 5, 8, 9 \quad 0.1$

$\theta = 2.3$

$t_2 \rightarrow \dots 2, 3, \boxed{5}, 7, 8, 11 \quad 2$
 $t_4 \rightarrow \dots 4, \boxed{5}, 8, 9 \quad 0.1$
 $t_1 \rightarrow \dots \boxed{5}, 6, 7, 8, 11 \quad 0.4$
 $t_3 \rightarrow \dots 8, 13, 15$

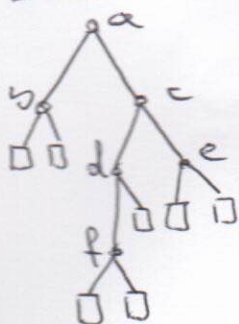


TF-IDF computation

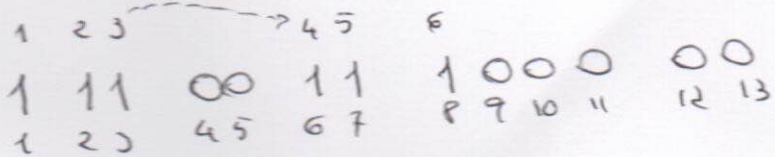
$T1 = \text{"una belle cosa"}$
 $T2 = \text{"una rosa rosa"}$
 $T3 = \text{"una una due due cosa cosa"}$
 $T4 = \text{"une belle rosa"}$

- o postings + θ
- o TF-IDF vectors
- o Text most similar with $T3 \rightarrow$ no $\|\cdot\|$ elem.

Tree

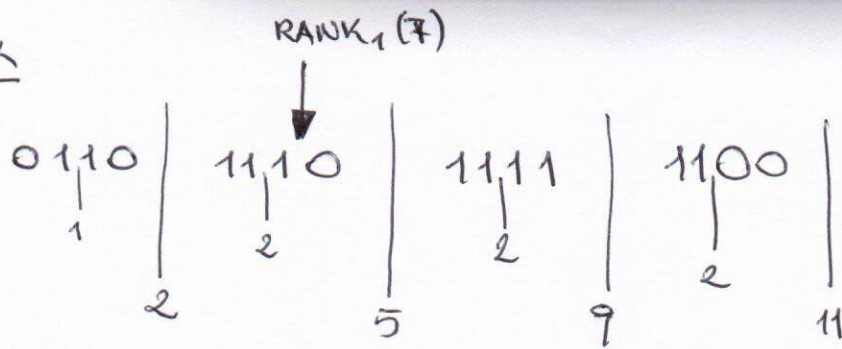


$2n+1 = 13$



$\text{left-child}(c) = (2-3) = 6 \text{ via } \rightarrow \text{rank}_1 = 4$
 \downarrow
 3 via

Rauk

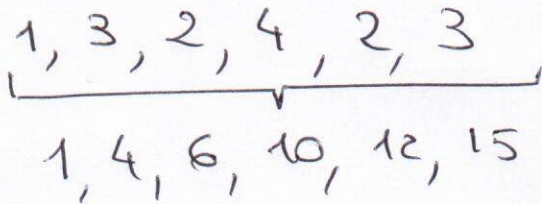


$Z = 4$
 $z = 2$

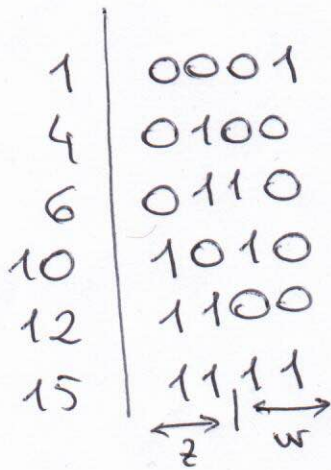
T	1	2
00	0	0
01	0	1
10	1	1
11	1	2

$Rauk_1(7) = 2 + 2 + T['10', 1] = 5$

Elias-Fano



→ rappresentato a 4 bit



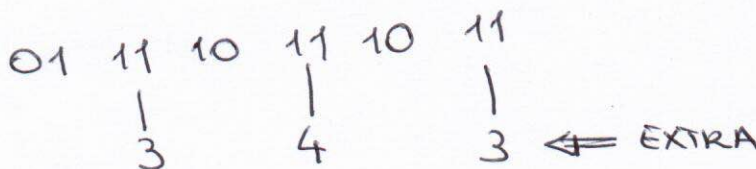
$w = \lceil \log_2 \frac{16}{6} \rceil = 2$

$z = 2$

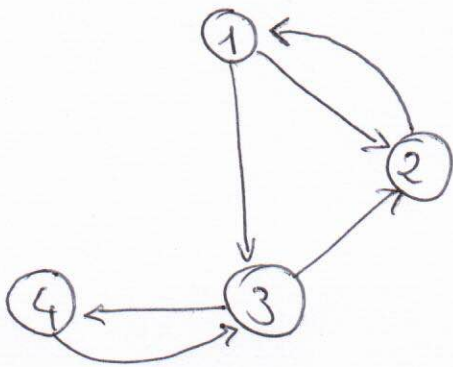
$H = 10\ 110\ 10\ 110$

Prefix Delta

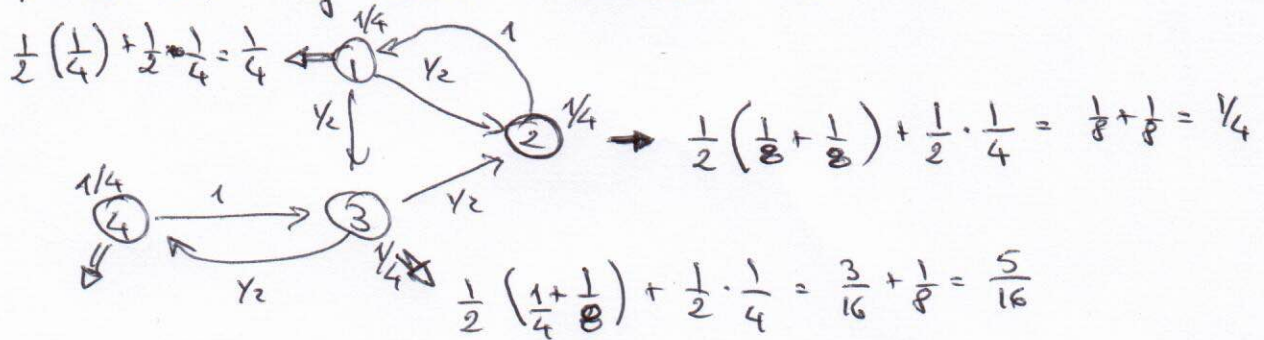
base = 0, b = 2 → 11 = ESC



Rainbow Walk

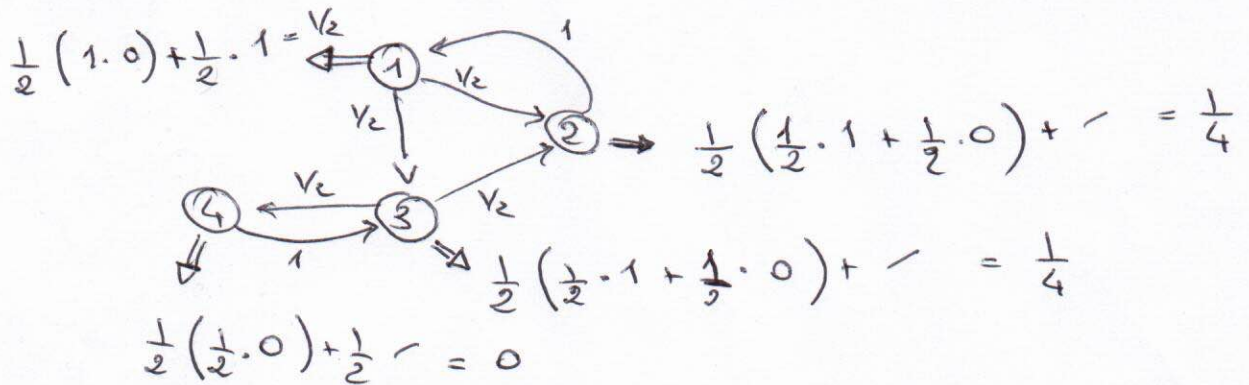


• ~~cu~~ **pono di PageRank** imitando de dist. unif. e $d=1/2$

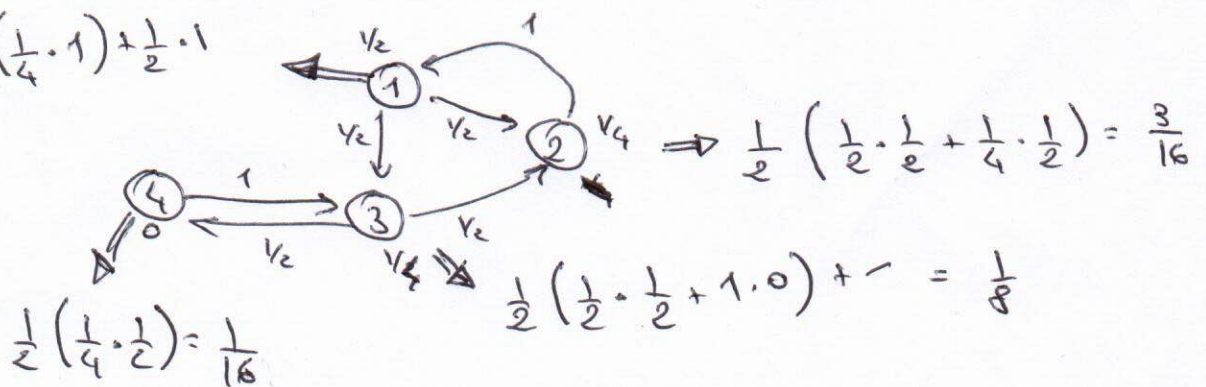


$$\frac{1}{2} \left(\frac{1}{8} \right) + \frac{1}{2} \cdot \frac{1}{4} = \frac{1}{16} + \frac{1}{8} = \frac{3}{16}$$

• **1 pono di PPR** al nodo 1 e prob iniziale $[1, 0, 0, 0]$ e $d=1/2$



$$\frac{5}{8} = \frac{1}{2} \left(\frac{1}{4} \cdot 1 \right) + \frac{1}{2} \cdot 1$$



• **Nodo piú simile a ②**