CDS 6530, lecture #13

10/2/2012

$$\pi_i \sum_{j \neq i} \lambda_{ij} = \sum_{j \neq i} \pi_j \lambda_{ji}$$

$$\sum_i \pi_i = 1$$

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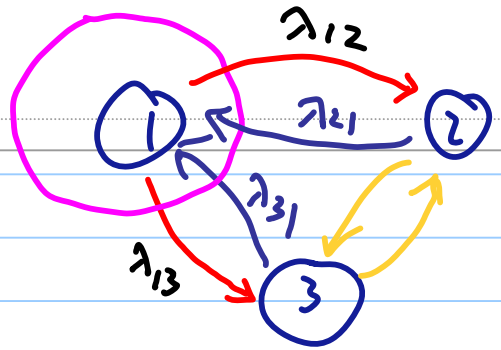


$$\pi_1(\lambda_{12} + \lambda_{13}) = \pi_3 \lambda_{31} + \pi_2 \cdot \lambda_{21}$$

$$-(\lambda_{12} + \lambda_{13})\pi_1 + \lambda_{31}\pi_3 + \lambda_{21}\pi_2 = 0$$

define

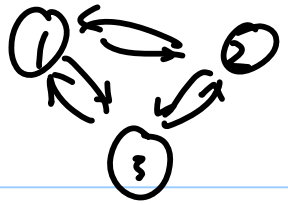
$$Q = \begin{bmatrix} -(\lambda_{12}+\lambda_{13}) & \lambda_{12} & \lambda_{13} \\ \lambda_{21} & -(\lambda_{21}+\lambda_{23}) & \lambda_{23} \\ \lambda_{31} & \lambda_{32} & -(\lambda_{31}+\lambda_{32}) \end{bmatrix}$$

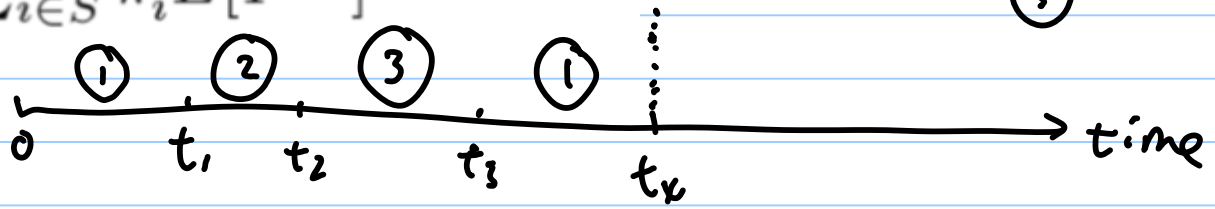
$$[\pi_1 \quad \pi_2 \quad \pi_3] \cdot \begin{bmatrix} -(\lambda_{12}+\lambda_{13}) \\ \lambda_{21} \\ \lambda_{31} \end{bmatrix} = 0$$

$$\Rightarrow \quad \pi Q = 0$$

$$\pi \cdot \mathbf{1} = 1$$

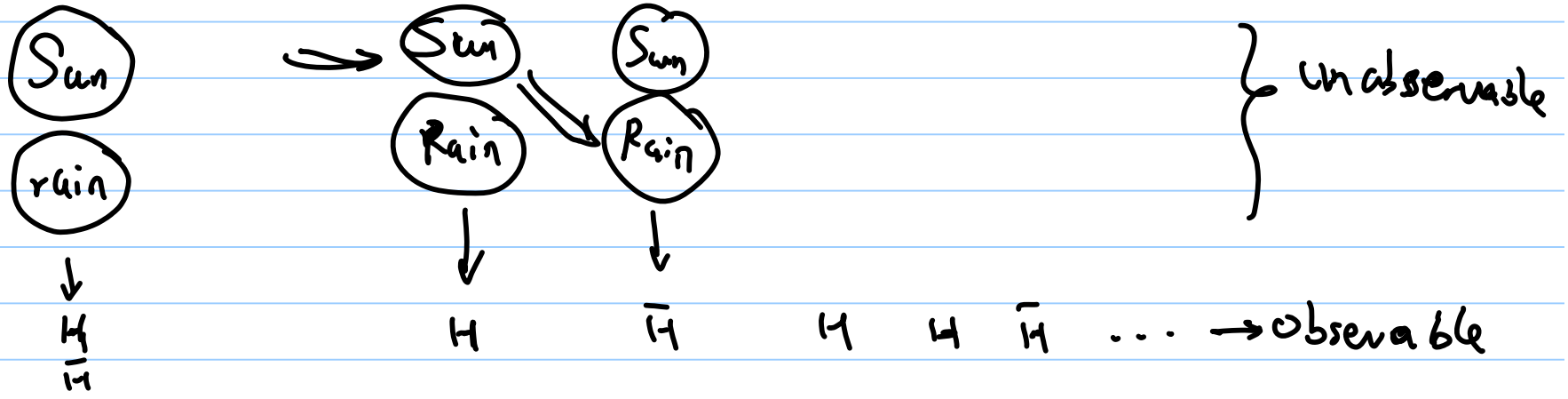
$$\pi_j = \frac{\pi'_j E[Y^{(j)}]}{\sum_{i \in S} \pi'_i E[Y^{(i)}]}, \quad j \in S$$

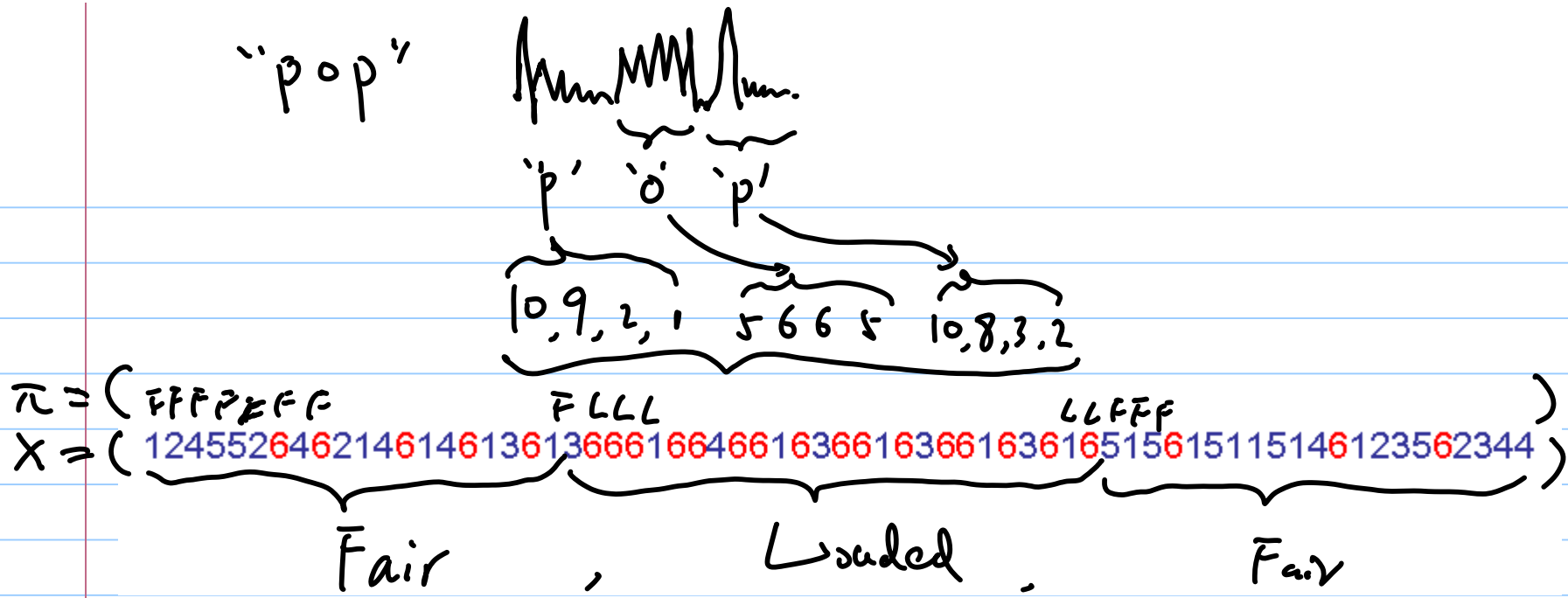




$\pi_1' = \frac{2}{4}$ $\pi_2' = \frac{1}{4}$ $\pi_3' = \frac{1}{4}$

$$\pi_1 = \frac{(t_1 - 0) + (t_4 - t_3)}{t_4}$$




"pop"
'p' 'o' 'p'
10,9,2,1
5 6 6 5
10,8,3,2
π = (FFFFFFF FLLL LLFFF)
X = (12455264621461461361366616646616366163661636165156151151461235623 44)
Fair , Loaded , Fair