

CADENAS DE MARKOV

EJERCICIO 1

$$\mathbf{A} := \begin{pmatrix} 0.5 & 0.4 & 0.35 \\ 0.25 & 0.2 & 0.3 \\ 0.25 & 0.4 & 0.35 \end{pmatrix}$$

$$\mathbf{x}_0 := \begin{pmatrix} 100 \\ 150 \\ 200 \end{pmatrix}$$

$$\mathbf{x}_1 = \mathbf{A} \cdot \mathbf{x}_0$$

{{180.}, {115.}, {155.}}

$$\mathbf{x}_2 = \mathbf{A} \cdot \mathbf{x}_1$$

{{190.25}, {114.5}, {145.25}}

$$\mathbf{x}_3 = \mathbf{A} \cdot \mathbf{x}_2$$

{{191.763}, {114.038}, {144.2}}

$$\mathbf{x}_{200} = \text{MatrixPower}[\mathbf{A}, 200] \cdot \mathbf{x}_0$$

{{192.}, {114.}, {144.}}

$$\text{Eigenvalues}[\mathbf{A}]$$

{1., 0.139564, -0.0895644}