$$c = \max_{1 \le j \le n} \left| 1 - 2 \min_{1 \le i \le n} M_{ij} \right|$$

$$M = \begin{pmatrix} M_{11} & M_{12} & \cdots & M_{1n} \\ M_{21} & M_{22} & \cdots & M_{2n} \\ \vdots & \vdots & \cdots & \vdots \\ M_{n1} & M_{n2} & & M_{nn} \end{pmatrix} \qquad ; \; v_j = \min_{1 \le i \le n} M_{ij} \, , \; 1 \le j \le n$$

$$\begin{matrix} \downarrow & \downarrow & \cdots & \downarrow \\ v_1 & v_2 & & v_n \end{matrix}$$

$$c = \max \left\{ |1 - 2v_1| , |1 - 2v_2| , \ldots , |1 - 2v_n| \right\}$$

$e^{(k)} = x - x^{(k)}$: ERRO (x: solução de $Mx = x$)

$$\| e^{(k)} \| = \sum_{i=1}^{n} | x_i - x_i^{(k)} |$$

c: CALCULADA

SUPONHA QUE $x^{(k-1)}$ E $x^{(k)}$ FORAM CALCULADOS, ENTÃO,

$$\| e^{(k)} \| \le \frac{c}{1-c} \| x^{(k)} - x^{(k-1)} \| = \underbrace{\frac{c}{1-c} \sum_{i=1}^{n} | x_i^{(k)} - x_i^{(k-1)} |}_{\text{COMPUTÁVEL !}}$$

CRITÉRIO DE PARADA: TOLERÂNCIA ε

CALCULE AS APROXIMAÇÕES ATÉ QUE $\dfrac{c}{1-c} \| x^{(k)} - x^{(k-1)} \| < \varepsilon$

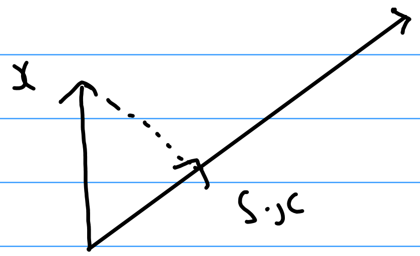
$$M = (1-m)A + mS$$

- SE y FOR UM VETOR DE n COMPONENTES TAL QUE

$$\sum_{i=1}^{n} y_i = 1,$$

ENTÃO

$$My = (1-m)Ay + m \cdot \begin{bmatrix} 1/n \\ 1/n \\ \vdots \\ 1/n \end{bmatrix}$$



$$\begin{pmatrix} 1/n \\ \vdots \\ 1/n \end{pmatrix}$$