$$Av = \lambda v$$

$$x_k \approx v \qquad \|x_k\|_\infty = 1 \qquad x_k = (\ldots, 1, \ldots)^T$$

$$Ax_k \approx \lambda_k (\ldots, 1, \ldots)^T = (\ldots, \lambda_k, \ldots)$$

$$A = \begin{bmatrix} x & x & 0 \\ x & x & 0 \\ x & x & 2 \end{bmatrix} \quad \det(A - \lambda I) = \begin{bmatrix} x-\lambda & x & 0 \\ x & x-\lambda & 0 \\ x & x & 2-\lambda \end{bmatrix} = (2-\lambda) \cdot \begin{bmatrix} & \end{bmatrix}$$

Rayl. podíly $x_{l+1} = A x_l$

$$\lambda_l = \frac{(x_{l+1}, x_l)}{(x_l, x_l)} = \frac{(A x_l, x_l)}{(x_l, x_l)} = \frac{x_l^* A x_l}{x_l^* x_l}$$

Algoritmus $x_0 = [1, \dots, 1]'$

$$x_{k-1} \leftarrow \frac{x_{k-1}}{\|x\|}$$

$$x_k = A x_{k-1}$$

$$\lambda_k = (x_k, x_{k-1})$$

B - má nulový 1. řádek

u - vl. vektor matice B

$Bu = \mu u \Rightarrow u = (0, x \dots y)^T$

$$B \cdot u = \begin{pmatrix} 0 & 0 & 0 & \dots & 0 \\ b_{21} & b_{22} & b_{2n} & - & - b_n \\ b_{31} & b_{32} & - & - & - \end{pmatrix} \begin{pmatrix} 0 \\ u_2 \\ u_3 \\ \vdots \\ u_n \end{pmatrix}$$

-> nezáleží na prvním sloupci B