

$$S = \begin{bmatrix} -1 & -16 & -2 \\ -16 & 5 & -14 \\ -2 & -14 & 14 \end{bmatrix}$$

$$(2.14) \rightarrow \begin{cases} (-1-\sigma)\ell - 16m - 2n = 0 \\ -16\ell + (5-\sigma)m - 14n = 0 \\ -2\ell - 14m + (14-\sigma)n = 0 \end{cases} \quad (\infty)$$

Karakteristiske
determinant

Karakteristiske
komponenter

$$\begin{vmatrix} -1-\sigma & -16 & -2 \\ -16 & 5-\sigma & -14 \\ -2 & -14 & 14-\sigma \end{vmatrix} = 0 \dots \Rightarrow \sigma^3 - 18\sigma^2 - 405\sigma + 4374 = 0 \quad (\infty)$$

$$(\infty) \rightarrow \text{kolm lahendot } \sigma = [-18; 27; 9] \rightarrow$$

$$\rightarrow \text{kolm peapinge } \sigma_1 = 27, \sigma_2 = 9, \sigma_3 = -18; \underline{\underline{\sigma_1 \geq \sigma_2 \geq \sigma_3}} \quad \nabla$$

$$\sigma_i \Leftrightarrow \text{peasumid } \bar{N}_i \quad \sigma_1 = 27 \rightarrow (\infty) \rightarrow \bar{N}_1 = (1/3, -2/3, 2/3)$$

$$\sigma_2 \rightarrow (*) \rightarrow \bar{N}_2 = (-2/3, 1/3, 2/3) \quad \sigma_3 \rightarrow (\infty) \rightarrow \bar{N}_3 = (2/3, 2/3, 1/3)$$

$$\text{Parema k\u00e4e kolmnurk kontroll: } \bar{N}_3 = \bar{N}_1 \times \bar{N}_2 = (-2/3, -2/3, -1/3)$$