

LaTeX Course

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HSE

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Unordered Lists

- LaTeX is pretty cool
- item 2
 - wow, nested item

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Blocks

In beamer you can make your text **highlighted**. As well as create create blocks with texts

Remark

Sample text

Important theorem

Sample text in red box

Examples

Sample text in green box.






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	Scaling	Unequal Scaling	Rotation	Horizontal Shear	Hyperbolic Rotation
Illustration					
Matrix	$\begin{bmatrix} k & 0 \\ 0 & k \end{bmatrix}$	$\begin{bmatrix} k_1 & 0 \\ 0 & k_2 \end{bmatrix}$	$\begin{bmatrix} \cos \theta & -\sin \theta \\ \sin \theta & \cos \theta \end{bmatrix}$	$\begin{bmatrix} 1 & k \\ 0 & 1 \end{bmatrix}$	$\begin{bmatrix} \cosh \varphi & \sinh \varphi \\ \sinh \varphi & \cosh \varphi \end{bmatrix}$
Characteristic Polynomail	$(\lambda - k)^2$	$(\lambda - k_1)(\lambda - k_2)$	$\lambda^2 - 2 \cos \theta \lambda + 1$	$(\lambda - 1)^2$	$\lambda^2 - 2 \cosh \varphi \lambda + 1$
Eigenvalues, λ_i	$\lambda_1 = \lambda_2 = k$	$\lambda_1 = k_1$ $\lambda_2 = k_2$	$\lambda_1 = e^{i\theta} = \cos \theta + i \sin \theta$ $\lambda_2 = e^{-i\theta} = \cos \theta - i \sin \theta$	$\lambda_1 = \lambda_2 = 1$	$\lambda_1 = e^\varphi = \cosh \varphi + \sinh \varphi$ $\lambda_2 = e^{-\varphi} = \cosh \varphi - \sinh \varphi$
Algebraic multiplicity, $\mu_i = \mu(\lambda_i)$	$\mu_1 = 2$	$\mu_1 = 1$ $\mu_2 = 1$	$\mu_1 = 1$ $\mu_2 = 1$	$\mu_1 = 1$	$\mu_1 = 1$ $\mu_2 = 1$
Geometric multiplicity, $\gamma_i = \gamma(\lambda_i)$	$\gamma_1 = 2$	$\gamma_1 = 1$ $\gamma_2 = 1$	$\gamma_1 = 1$ $\gamma_2 = 1$	$\gamma_1 = 1$	$\gamma_1 = 1$ $\gamma_2 = 1$
Eigenvectors	All nonzero vectors	$\mathbf{u}_1 = \begin{bmatrix} 1 \\ 0 \end{bmatrix}$ $\mathbf{u}_2 = \begin{bmatrix} 0 \\ 1 \end{bmatrix}$	$\mathbf{u}_1 = \begin{bmatrix} 1 \\ -i \end{bmatrix}$ $\mathbf{u}_2 = \begin{bmatrix} 1 \\ +i \end{bmatrix}$	$\mathbf{u}_1 = \begin{bmatrix} 1 \\ 0 \end{bmatrix}$	$\mathbf{u}_1 = \begin{bmatrix} 1 \\ 1 \end{bmatrix}$ $\mathbf{u}_2 = \begin{bmatrix} 1 \\ -1 \end{bmatrix}$

The End

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