

CS488 Lecture 4 - Transforms Continued

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3D Rotation

How can we represent a rotation(θ) with respect to an arbitrary axis?

Formulas

see last slide/pictures

Remarks

- An arbitrary sequence of rotation, translation, reflection, scaling and shear results in an affine transformation
- affine transformations preserve parallelism of lines but not angles and lengths

By convention Right hand is the frame, thumb is x, index finger is y, middle finger is z, and for the view, we use the left hand

Change of Base