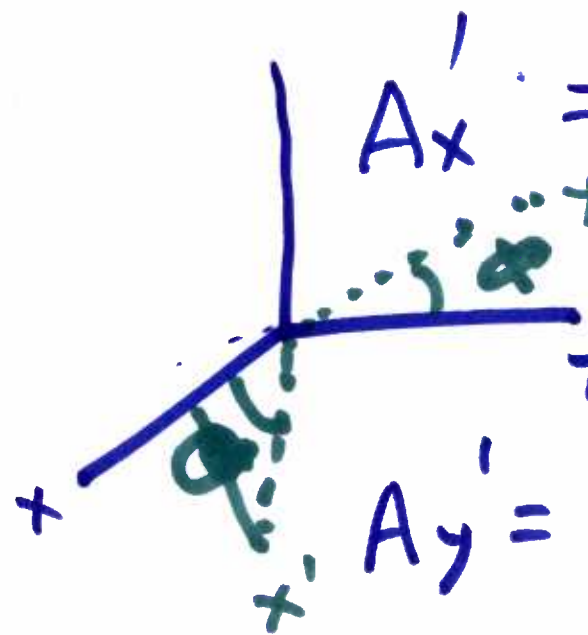


$$\vec{A} = A_x \hat{i} + A_y \hat{j} + A_z \hat{k}$$
$$\vec{A} = A'_x \hat{i}' + A'_y \hat{j}' + A'_z \hat{k}'$$



A diagram illustrating the rotation of a coordinate system. The original axes are labeled x and y . The rotated axes are labeled x' and y' . The angle between the x and x' axes is labeled ϕ . The diagram shows the projection of the rotated axes onto the original axes, with dashed lines indicating the components.

$$A_{x'} = A_x \cos \phi + A_y \sin \phi$$
$$A_{y'} = -A_x \sin \phi + A_y \cos \phi$$

$$\gamma^2 (A_1 + i\beta A_4)(B_1 + i\beta B_4)$$

$$\gamma^2 (A_1 B_1 + i\beta A_1 B_4 + i\beta A_4 B_1 - \beta^2 A_4 B_4)$$

$$\gamma^2 = \left(\frac{1}{\sqrt{1-\beta^2}} \right)^2$$

$$\gamma^2 = \frac{1}{(1-\beta^2)}$$