

$$\vec{c} = \vec{u} - \lambda \vec{v}$$

$$\vec{c} \perp \vec{v}$$

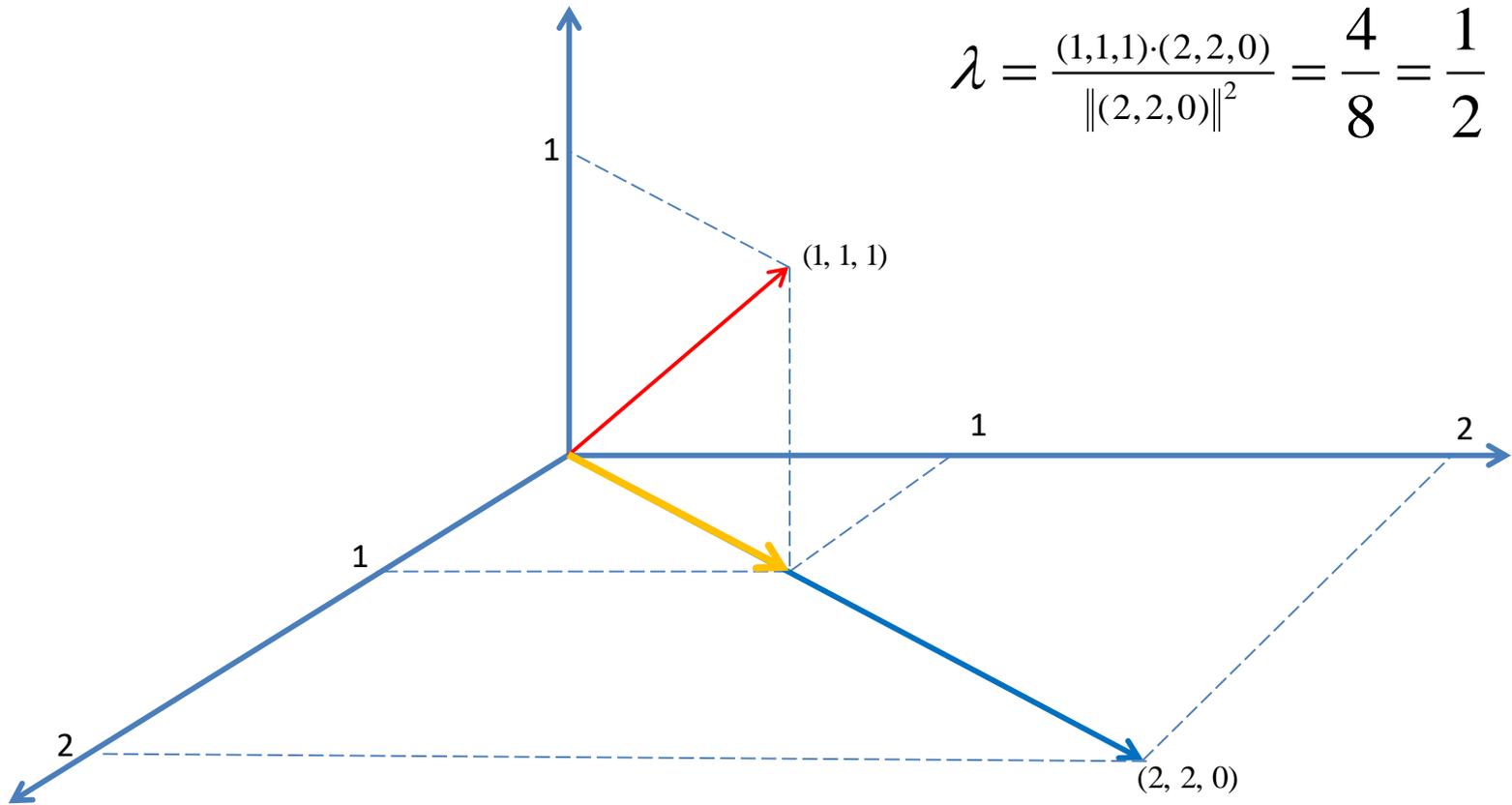
$$\vec{c} \cdot \vec{v} = 0$$

$$(\vec{u} - \lambda \vec{v}) \cdot \vec{v} = 0$$

$$\vec{u} \cdot \vec{v} - \lambda \vec{v} \cdot \vec{v} = 0$$

$$\lambda = \frac{\vec{u} \cdot \vec{v}}{\vec{v} \cdot \vec{v}} = \frac{\vec{u} \cdot \vec{v}}{\|\vec{v}\|^2}$$

El vector amarillo es λ por el vector azul, y el valor de λ se calcula como...



$$\lambda = \frac{(1,1,1) \cdot (2,2,0)}{\|(2,2,0)\|^2} = \frac{4}{8} = \frac{1}{2}$$

$$\lambda \cdot (2, 2, 0) = \frac{1}{2} \cdot (2, 2, 0) = (1, 1, 0)$$