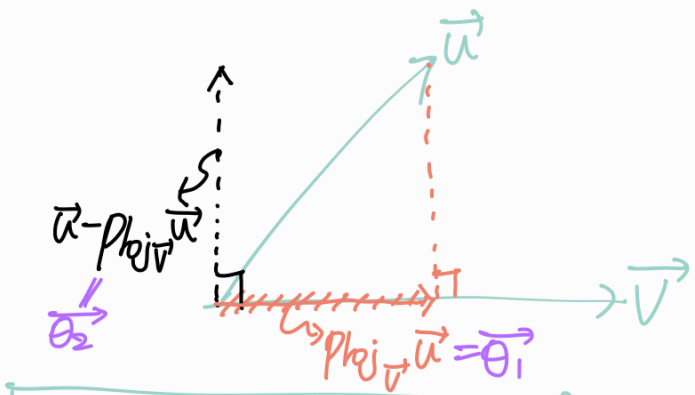
CH03_10

<Projection Matrices>

$$P_V = \frac{\vec{v} \cdot \vec{v}^T}{(\|\vec{v}\|)^2}$$

$\vec{v}^T$ → $\vec{v}$ Transpose

P_V → $Proj_{\vec{v}}\vec{u}$



$$\vec{u} = Proj_{\vec{v}}\vec{u} + (\vec{u} - Proj_{\vec{v}}\vec{u})$$

$\vec{v}_{//}$ $\quad$ $\vec{v}_{\perp}$

→ $\vec{u}$를 각각, 세로 벡터로 표현.

$$\vec{\theta_1} = \left(\frac{\vec{v} \cdot \vec{v}^T}{\|\vec{v}\|^2}\right) \cdot \vec{u}$$

$$\vec{\theta_2} = \left(I - \frac{\vec{v} \cdot \vec{v}^T}{\|\vec{v}\|^2}\right) \cdot \vec{u}$$