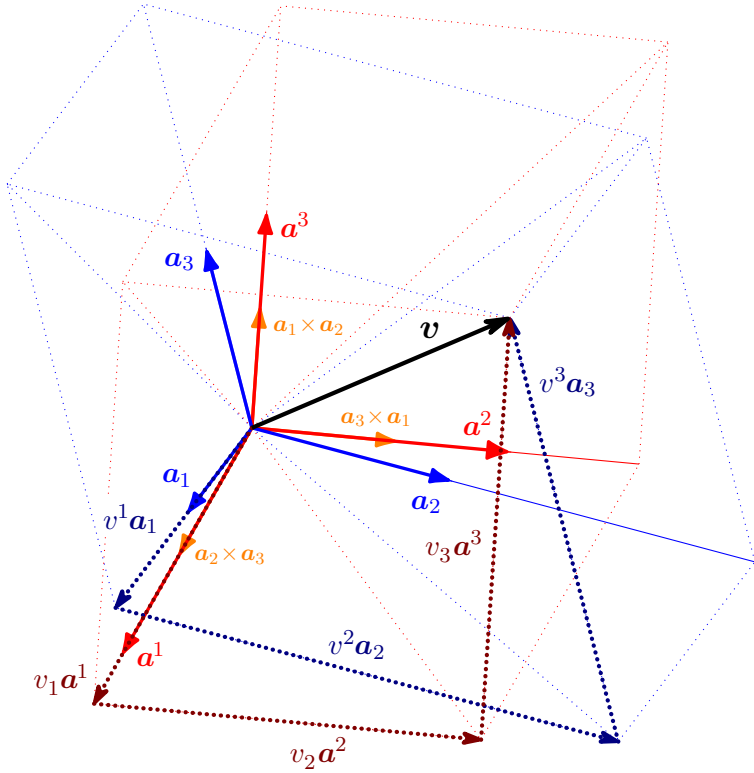


$$\theta = 36^\circ \quad \phi = 98^\circ$$

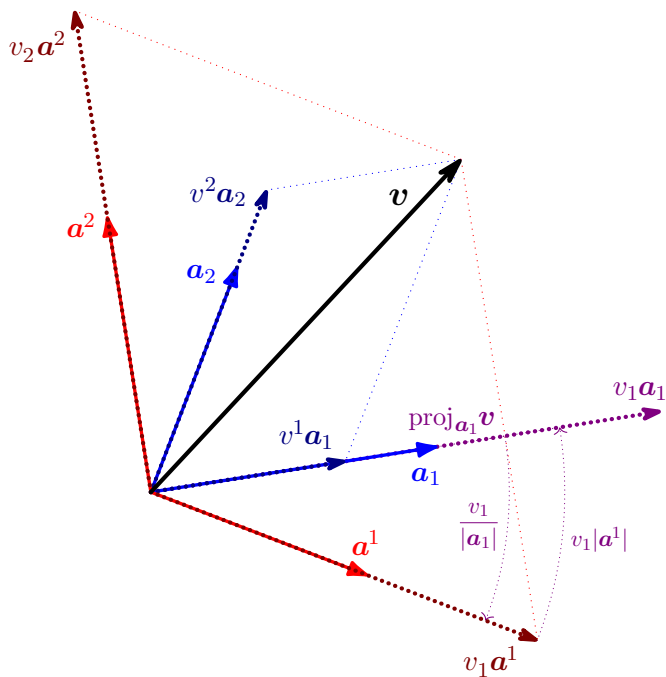
$$\begin{array}{lll} v^\varrho = 3.33 & v^\theta = 33^\circ & v^\phi = 44^\circ \\ a_1^\varrho = 0.69 & a_1^\theta = 71^\circ & a_1^\phi = -16^\circ \\ a_2^\varrho = 0.88 & a_2^\theta = 86^\circ & a_2^\phi = 77^\circ \\ a_3^\varrho = 0.96 & a_3^\theta = -19^\circ & a_3^\phi = 45^\circ \end{array}$$



$$\begin{aligned} \mathbf{a}_1 \times \mathbf{a}_2 \cdot \mathbf{a}_3 &= \sqrt{g} = 0.56274 \\ 1/\sqrt{g} &= 1.77703 \end{aligned}$$

$$\mathbf{a}_i \cdot \mathbf{a}^j = \begin{bmatrix} \mathbf{a}_1 \cdot \mathbf{a}^1 & \mathbf{a}_1 \cdot \mathbf{a}^2 & \mathbf{a}_1 \cdot \mathbf{a}^3 \\ \mathbf{a}_2 \cdot \mathbf{a}^1 & \mathbf{a}_2 \cdot \mathbf{a}^2 & \mathbf{a}_2 \cdot \mathbf{a}^3 \\ \mathbf{a}_3 \cdot \mathbf{a}^1 & \mathbf{a}_3 \cdot \mathbf{a}^2 & \mathbf{a}_3 \cdot \mathbf{a}^3 \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} = \delta_i^j$$

figure 1
“Decomposition of vector”



$$a_1 \cdot a_1 = 1.44, \quad |a_1| = 1.2$$

$$a_2 \cdot a_2 = 1, \quad |a_2| = 1$$

$$a^1 \cdot a^1 = 0.9259, \quad |a^1| = 0.9623$$

$$a^2 \cdot a^2 = 1.3333, \quad |a^2| = 1.1547$$