

$$\text{General Instantiation: } A = \begin{bmatrix} L(\mathbf{e}_x) = & A_{xx}\mathbf{e}_x + A_{yx}\mathbf{e}_y + A_{zx}\mathbf{e}_z \\ L(\mathbf{e}_y) = & A_{xy}\mathbf{e}_x + A_{yy}\mathbf{e}_y + A_{zy}\mathbf{e}_z \\ L(\mathbf{e}_z) = & A_{xz}\mathbf{e}_x + A_{yz}\mathbf{e}_y + A_{zz}\mathbf{e}_z \end{bmatrix}$$

$$\text{Rotor: } R = \cos\left(\frac{\theta}{2}\right) + \sin\left(\frac{\theta}{2}\right)\mathbf{e}_x \wedge \mathbf{e}_y$$

$$\text{Rotor Instantiation: } B = \begin{bmatrix} L(\mathbf{e}_x) = & \cos(\theta)\mathbf{e}_x - \sin(\theta)\mathbf{e}_y \\ L(\mathbf{e}_y) = & \sin(\theta)\mathbf{e}_x + \cos(\theta)\mathbf{e}_y \\ L(\mathbf{e}_z) = & \mathbf{e}_z \end{bmatrix}$$

$$\text{Dictionary} = \{\mathbf{e}_x : \mathbf{e}_y + \mathbf{e}_z, \quad \mathbf{e}_y : \mathbf{e}_x + \mathbf{e}_z, \quad \mathbf{e}_z : \mathbf{e}_y + \mathbf{e}_z\}$$

$$\text{Dictionary Instantiation: } C = \begin{bmatrix} L(\mathbf{e}_x) = & 0 \\ L(\mathbf{e}_y) = & 0 \\ L(\mathbf{e}_z) = & 0 \end{bmatrix}$$

$$\text{List} = [[1, \quad 0, \quad 1], \quad [0, \quad 1, \quad 0], \quad [1, \quad 0, \quad 1]]$$

$$\text{List Instantiation: } D = \begin{bmatrix} L(\mathbf{e}_x) = & \mathbf{e}_x + \mathbf{e}_z \\ L(\mathbf{e}_y) = & \mathbf{e}_y \\ L(\mathbf{e}_z) = & \mathbf{e}_x + \mathbf{e}_z \end{bmatrix}$$

$$\text{List} = [\mathbf{e}_y + \mathbf{e}_z, \quad \mathbf{e}_x + \mathbf{e}_z, \quad \mathbf{e}_x + \mathbf{e}_y]$$

$$\text{List Instantiation: } E = \begin{bmatrix} L(\mathbf{e}_x) = & \mathbf{e}_y + \mathbf{e}_z \\ L(\mathbf{e}_y) = & \mathbf{e}_x + \mathbf{e}_z \\ L(\mathbf{e}_z) = & \mathbf{e}_x + \mathbf{e}_y \end{bmatrix}$$