

$$Q_{kk} = Q_{ll}$$

$$\tan(2\phi) = \pm \infty$$

$$2\phi = \frac{\pi}{2}$$

$$\phi = \frac{\pi}{4}$$

$$\sin \phi = \cos \phi = \frac{1}{\sqrt{2}}$$

$$2\phi = -\frac{\pi}{2}$$

$$\phi = -\frac{\pi}{4}$$

$$\cos \phi = \frac{1}{\sqrt{2}}$$

$$\sin \phi = -\frac{1}{\sqrt{2}}$$