$$\nabla = \boldsymbol{e}_x \frac{\partial}{\partial x} + \boldsymbol{e}_y \frac{\partial}{\partial y} + \boldsymbol{e}_z \frac{\partial}{\partial z}$$

$$\nabla^2 = \nabla \cdot \nabla = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} + \frac{\partial^2}{\partial z^2}$$

$$\left(\nabla^2\right) f = \partial_x^2 f + \partial_y^2 f + \partial_z^2 f$$

$$\nabla \cdot (\nabla f) = \partial_x^2 f + \partial_y^2 f + \partial_z^2 f$$

$$\nabla^2 = \nabla \cdot \nabla = \frac{2}{r} \frac{\partial}{\partial r} + \frac{1}{r^2 \tan(\theta)} \frac{\partial}{\partial \theta} + \frac{\partial^2}{\partial r^2} + r^{-2} \frac{\partial^2}{\partial \theta^2} + \frac{1}{r^2 \sin^2(\theta)} \frac{\partial^2}{\partial \phi^2}$$

$$\left(\nabla^2\right) f = \frac{1}{r^2} \left(r^2 \partial_r^2 f + 2r \partial_r f + \partial_\theta^2 f + \frac{\partial_\theta f}{\tan(\theta)} + \frac{\partial_\phi^2 f}{\sin^2(\theta)} \right)$$

$$\nabla \cdot (\nabla f) = \frac{1}{r^2} \left(r^2 \partial_r^2 f + 2r \partial_r f + \partial_\theta^2 f + \frac{\partial_\theta f}{\tan(\theta)} + \frac{\partial_\phi^2 f}{\sin^2(\theta)} \right)$$

$$\begin{aligned}&\Big[\boldsymbol{e}_x \tfrac{\partial}{\partial x} + \boldsymbol{e}_y \tfrac{\partial}{\partial y} + \boldsymbol{e}_z \tfrac{\partial}{\partial z},\\ &\ \boldsymbol{e}_x \tfrac{\partial}{\partial x} + \boldsymbol{e}_y \tfrac{\partial}{\partial y} + \boldsymbol{e}_z \tfrac{\partial}{\partial z}\Big]\end{aligned}$$

$$F$$

$$F^r \boldsymbol{e}_r + F^\theta \boldsymbol{e}_\theta + F^\phi \boldsymbol{e}_\phi$$

$$F$$

$$F^r \boldsymbol{e}_r + F^\theta \boldsymbol{e}_\theta + F^\phi \boldsymbol{e}_\phi$$

$$F$$

$$\begin{aligned}&\big(F^r \boldsymbol{e}_r + F^\theta \boldsymbol{e}_\theta + F^\phi \boldsymbol{e}_\phi,\\ &\ F^r \boldsymbol{e}_r + F^\theta \boldsymbol{e}_\theta + F^\phi \boldsymbol{e}_\phi\big)\end{aligned}$$