Coordonnés cylindrique

(r, ϕ, z)

Les équations	$\begin{cases} x = r\cos\phi \\ y = r\sin\phi \\ z = z \end{cases}$
Les limites	$0 \le r$ $0 \le \phi < 2\pi$ $-\infty < z < \infty$
Facteurs d'échelle	$h_1 = 1$ $h_2 = r$ $h_3 = 1$
Élément de déplacement	$d\vec{l} = dr\hat{r} + rd\phi\hat{\phi} + dz\hat{z}$
Élément de surface	$ds_r = rd\phi dz$ $ds_\phi = drdz$ $ds_z = rdrd\phi$
Élément de volume	$dV = rdrd\phi dz$
Gradient	$\vec{\nabla} f = \frac{\partial f}{\partial r}\hat{r} + \frac{1}{r}\frac{\partial f}{\partial \phi}\hat{\phi} + \frac{\partial f}{\partial z}\hat{z}$
Divergence	$\vec{\nabla}.\vec{A} = \frac{1}{r}\left[\frac{\partial}{\partial r}(rA_r) + \frac{\partial}{\partial \phi}A_\phi + \frac{\partial}{\partial z}(rA_z)\right]$
Rotationnel	$\vec{\nabla} \times \vec{A} = \frac{1}{r}\begin{vmatrix} \hat{r} & r\hat{\phi} & \hat{z} \\ \frac{\partial}{\partial r} & \frac{\partial}{\partial \phi} & \frac{\partial}{\partial z} \\ A_r & rA_\phi & A_z \end{vmatrix}$
Laplacien	$\nabla^2\Phi = \frac{1}{r}\frac{\partial}{\partial r}\left(r\frac{\partial \Phi}{\partial r}\right) + \frac{1}{r^2}\frac{\partial^2\Phi}{\partial \phi^2} + \frac{\partial^2\Phi}{\partial z^2}$
Vecteur position	$\vec{r} = r\,\hat{r} + z\,\hat{z}$ ou bien $\vec{r} = r\,\hat{r}(\theta) + z\,\hat{z}$
Vecteur position unitaire	$\hat{r} = \frac{r\,\hat{r} + z\,\hat{z}}{(r^2 + z^2)^{\frac{1}{2}}}$ ou bien $\hat{r} = \frac{r\,\hat{r}(\theta) + z\,\hat{z}}{(r^2 + z^2)^{\frac{1}{2}}}$