Cylindrical coordinate system, (r, z) plane. $S = S(r, z, t)$.

$$\Delta S = \frac{1}{r}\frac{\partial}{\partial r}\left(r\frac{\partial S}{\partial r}\right) + \frac{\partial^2 S}{\partial z^2} \approx$$
$$\approx \frac{1}{r}\frac{\partial}{\partial r}\left(r_i \frac{S_{i,j,k} - S_{i-1,j,k}}{g}\right) + \frac{\partial^2 S}{\partial z^2} \approx$$
$$\approx \frac{r_{i+1/2}\frac{S_{i+1,j,k}-S_{i,j,k}}{g} - r_{i-1/2}\frac{S_{i,j,k}-S_{i-1,j,k}}{g}}{r_i g} + \frac{\partial^2 S}{\partial z^2} \approx$$
$$\approx \frac{r_{i+1/2}S_{i+1,j,k} - (r_{i+1/2} + r_{i-1/2})S_{i,j,k} + r_{i-1/2}S_{i-1,j,k}}{r_i g^2} + \frac{S_{i,j+1,k} - 2S_{i,j,k} + S_{i,j-1,k}}{h^2}. \quad (1)$$

Here g and h are step sizes correspondingly in r and z axes. Note that $r_{i+1/2} = r_i + \frac{g}{2}$ and $r_{i-1/2} = r_i - \frac{g}{2}$.