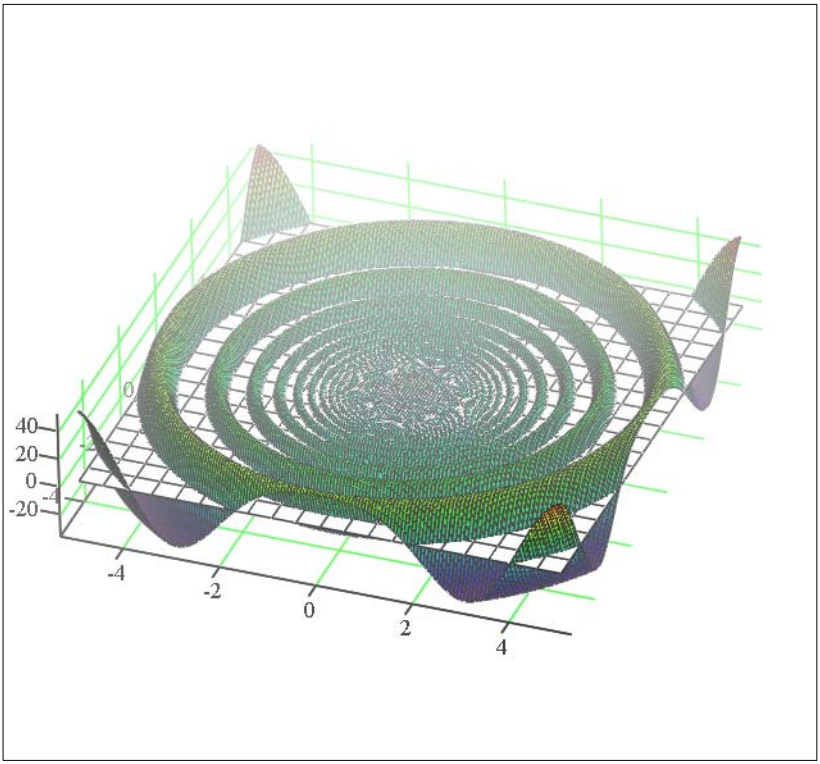
$$u(x,y) := \left(x^2 + y^2\right)\cdot\sin\left(\frac{100}{\sqrt{x^2 + y^2 + 0.00000001}}\right)$$

$x0 := 0 \qquad y0 := 0 \qquad u0 := u(x0, y0)$

$$ux(x,y) := \frac{d}{dx}u(x,y) \qquad ux0 := ux(x0, y0)$$

$$uy(x,y) := \frac{d}{dy}u(x,y) \qquad uy0 := uy(x0, y0)$$

$v(x,y) := u0 + ux0\cdot(x - x0) + uy0\cdot(y - y0)$



u , v