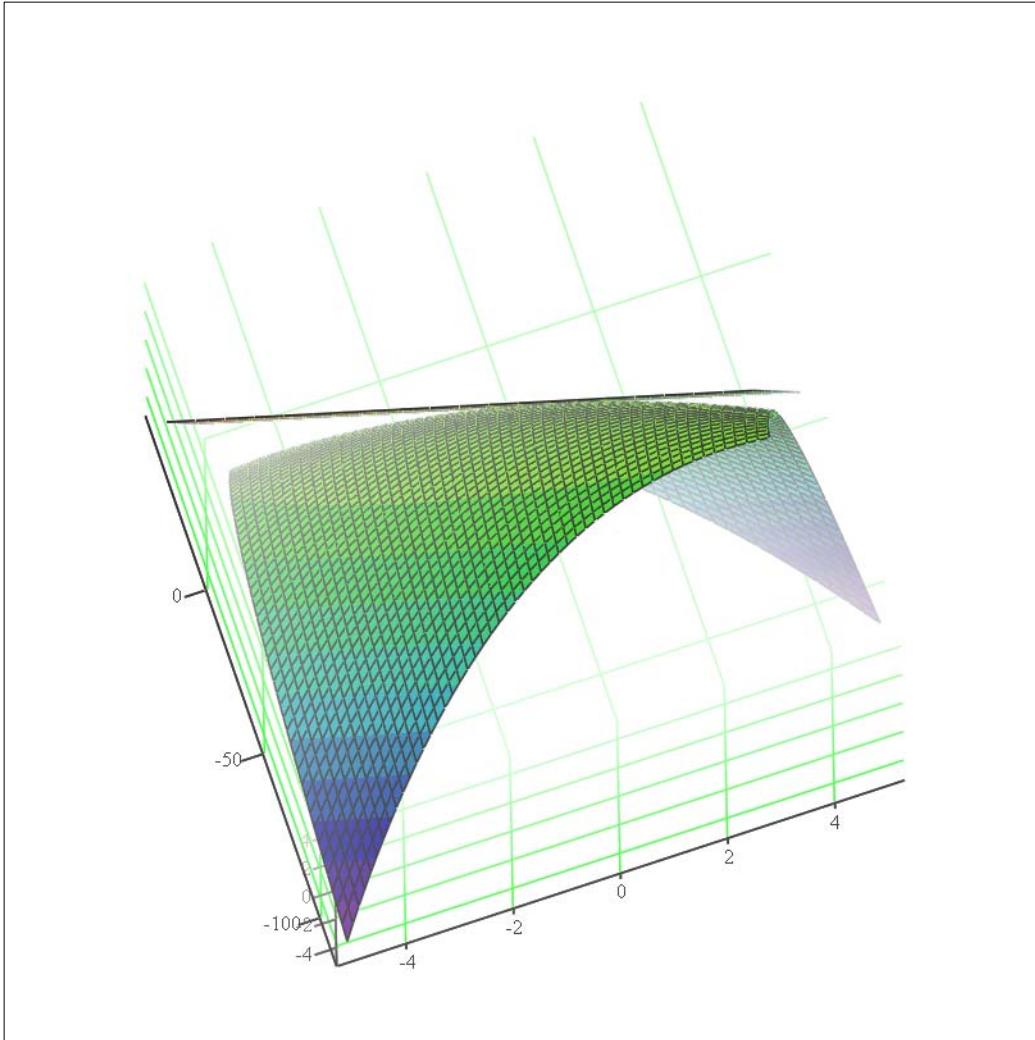


$$u(x,y) := -\left(x^2 + 2xy + y^2\right) - \frac{x^2 + y^2}{5}$$

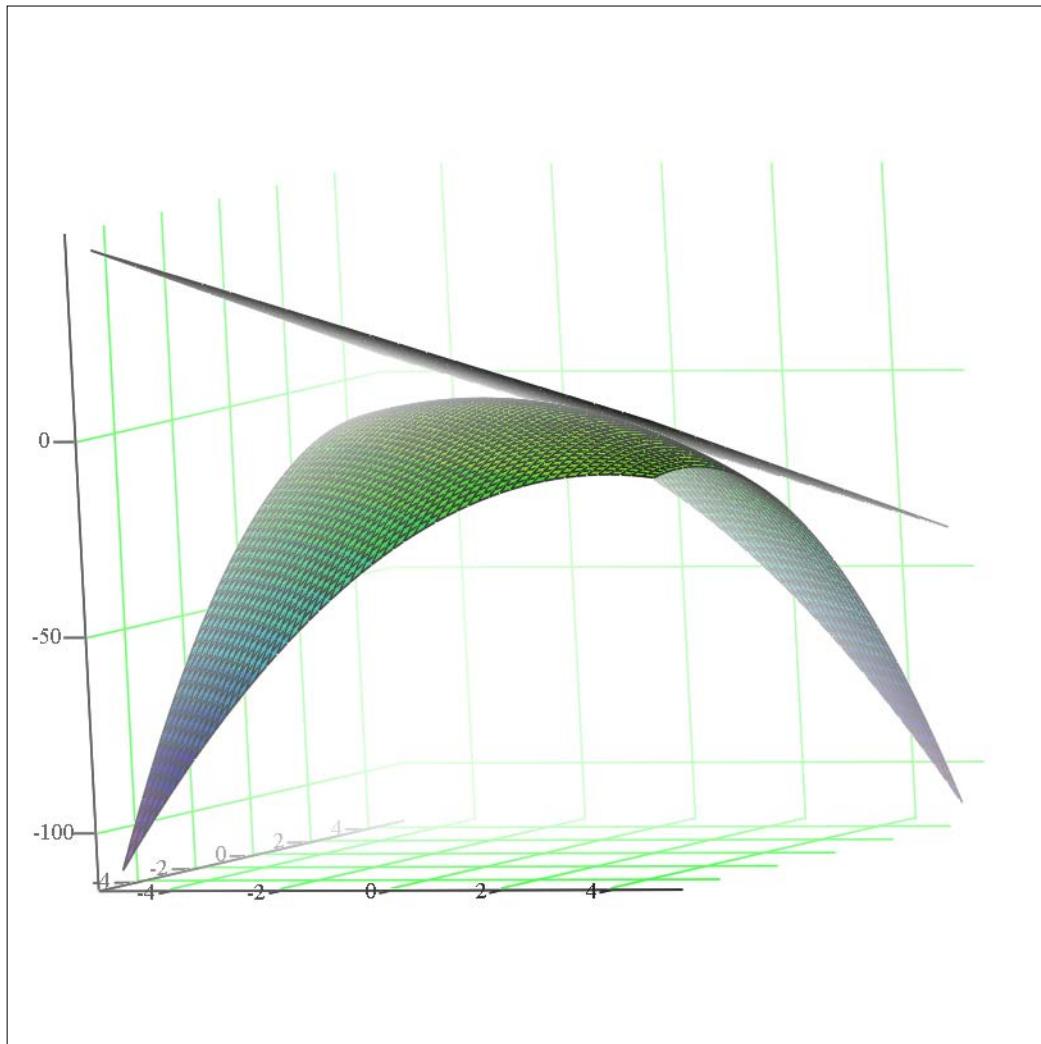
$$x_0 := 1 \quad y_0 := 1 \quad u_0 := u(x_0, y_0)$$

$$u_x(x,y) := \frac{d}{dx} u(x,y) \quad u_{x0} := u_x(x_0, y_0) \quad u_y(x,y) := \frac{d}{dy} u(x,y) \quad u_{y0} := u_y(x_0, y_0)$$

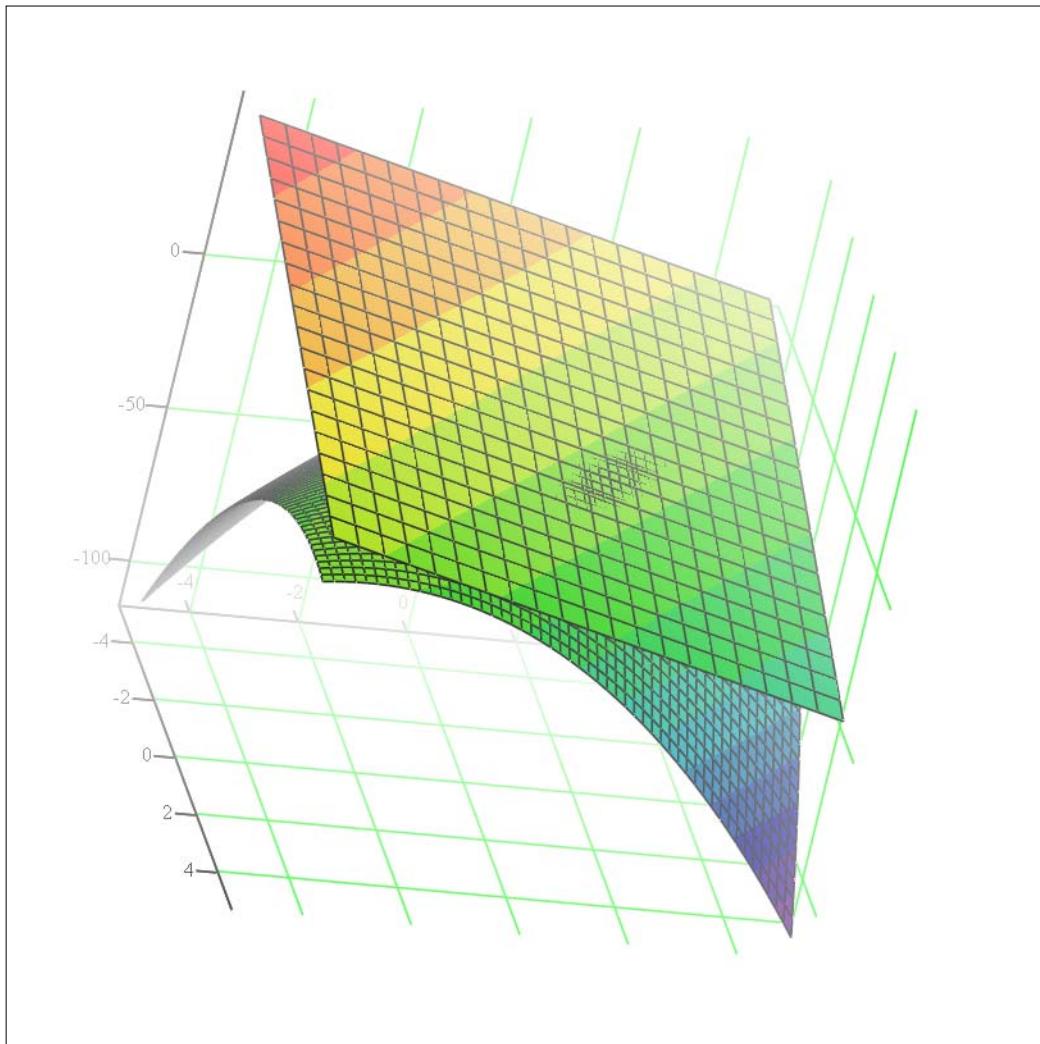
$$v(x,y) := u_0 + u_{x0} \cdot (x - x_0) + u_{y0} \cdot (y - y_0)$$



$u, v$



$u, v$



$u, v$