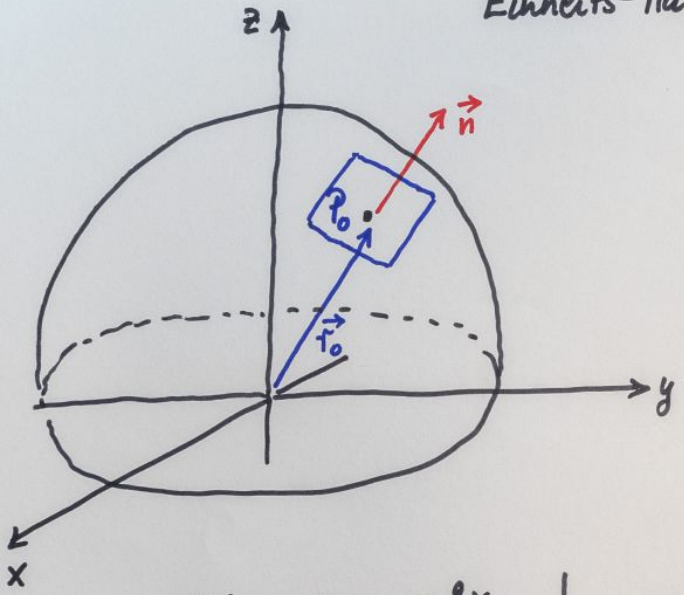
Beispiel: $z = f(x,y) = \sqrt{1-x^2-y^2}$

Einheits-Halbkugel



$$\left.\frac{\partial f}{\partial x}\right|_{P_0} = \frac{1}{2}\left.\frac{-2x}{\sqrt{1-x^2-y^2}}\right|_{P_0} = -\frac{x_0}{z_0}$$

$$\left.\frac{\partial f}{\partial y}\right|_{P_0} = -\frac{y_0}{z_0}$$

Resultat: $\vec{n} = \frac{x_0}{z_0}\vec{i} + \frac{y_0}{z_0}\vec{j} + \vec{k} \quad \Big| \cdot z_0$

$$\rightarrow \vec{n}' = x_0\vec{i} + y_0\vec{j} + z_0\vec{k} = \vec{r}_0$$