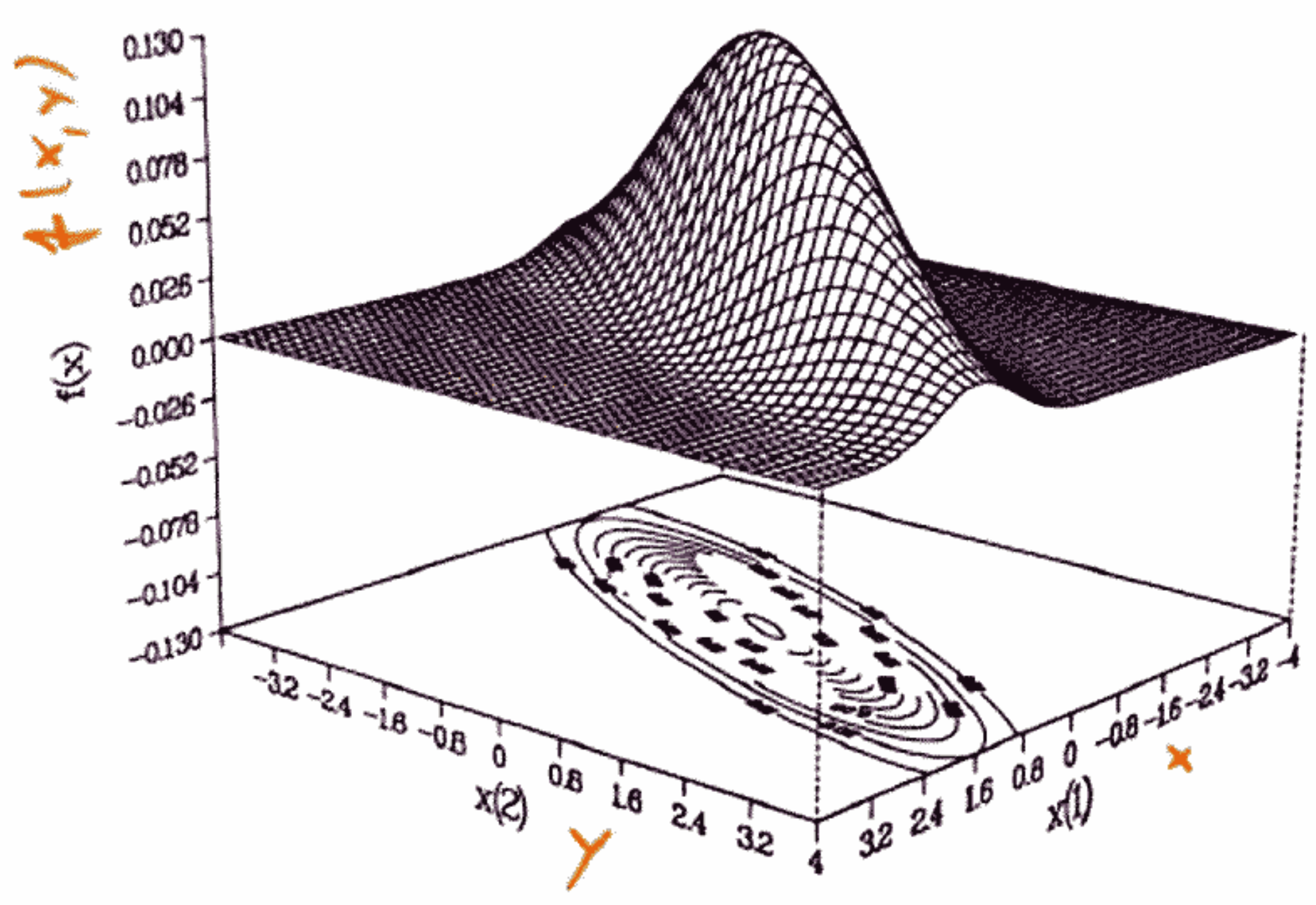


two-dimensional normal distribution



$$f(x,y) = \frac{1}{2\pi \sigma_x \sigma_y \sqrt{1-\rho^2}} e^{-\frac{1}{2(1-\rho^2)} [Q]}$$

$$Q = \left(\frac{x - \mu_x}{\sigma_x}\right)^2 - 2\rho^2 \left(\frac{x - \mu_x}{\sigma_x}\right) \left(\frac{y - \mu_y}{\sigma_y}\right) + \left(\frac{y - \mu_y}{\sigma_y}\right)^2$$

Linien $Q = \text{const.}$: elliptische Höhenlinien von $f(x,y)$

$n > 2$

$$f(\underline{x}) = \frac{1}{(2\pi)^{\frac{n}{2}} \sqrt{\text{Det } B^{-1}}} e^{-\frac{1}{2}(\underline{x} - \underline{\mu})^T B^{-1}(\underline{x} - \underline{\mu})}$$

B^{-1} Kovarianzmatrix