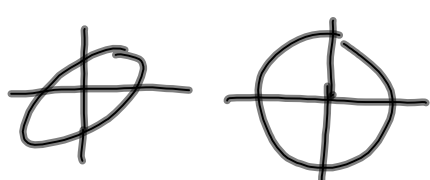


Error Propagation  24-1

adjustment } ⇒ errorprop $\begin{matrix} Q_{00} \\ Q_{0v} \\ Q_{vv} \end{matrix} \rightarrow \begin{matrix} \Sigma_{\Delta_0} \\ \Sigma_{vv} \\ \underline{\underline{\Sigma_{2\hat{x}}}} \end{matrix}$
 estimator }

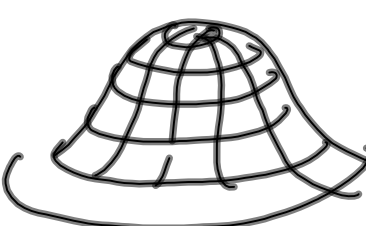
assume normal distribution

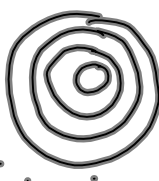
1D: $f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$


ND or MVN: $f(\vec{x}) = \frac{1}{(2\pi)^{n/2} \sqrt{|\Sigma|}} \cdot \exp\left\{-\frac{1}{2}(\vec{x}-\mu)^T \Sigma^{-1} (\vec{x}-\mu)\right\}$

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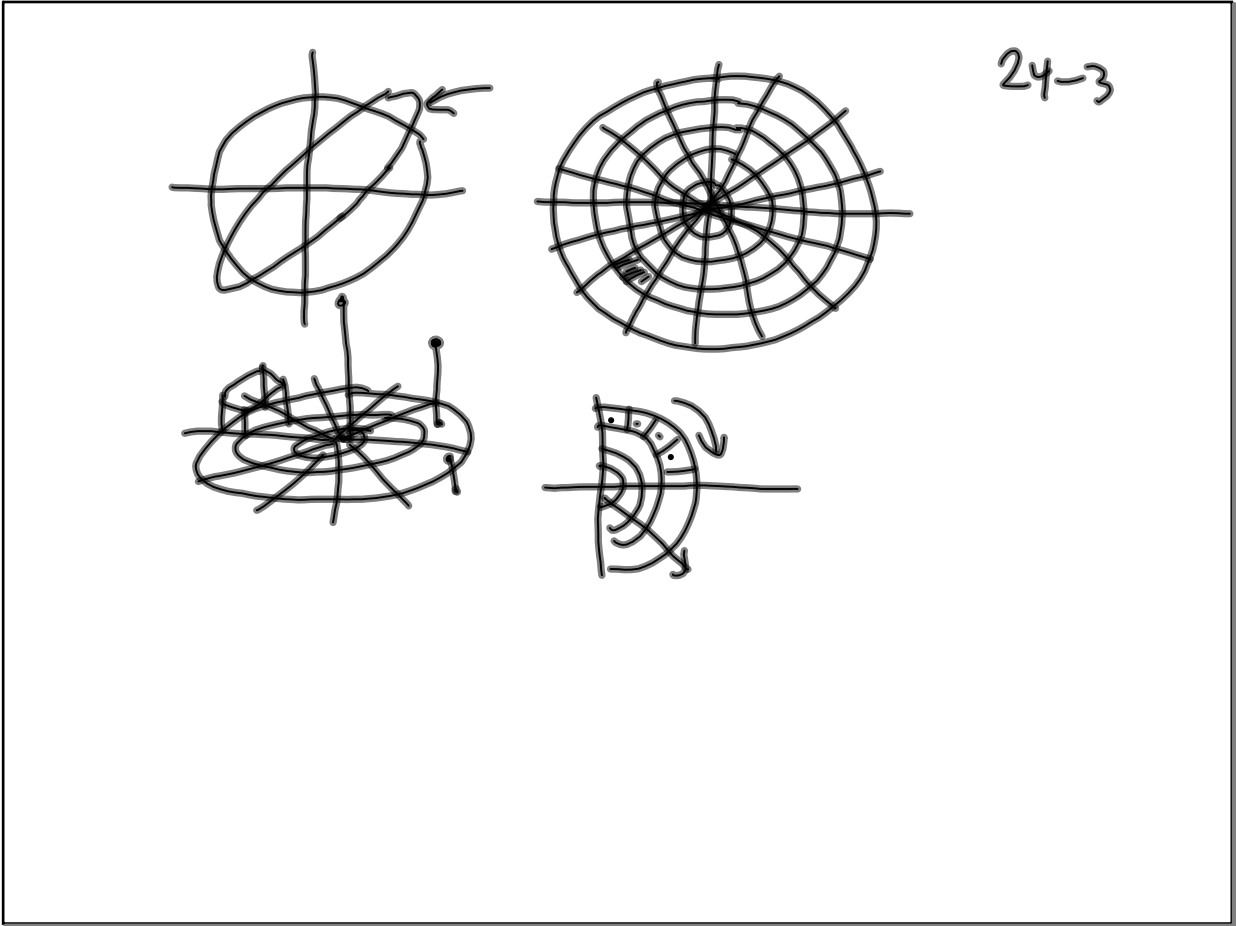
2D: $f(x, y) = \frac{1}{2\pi\sqrt{|\Sigma|}} e^{-\frac{1}{2} \begin{bmatrix} x-\mu_x & y-\mu_y \end{bmatrix} \Sigma^{-1} \begin{bmatrix} x-\mu_x \\ y-\mu_y \end{bmatrix}}$ 24-2

 hill function

 plan view
 $\sigma_{xy} = 0$
 $\rho = 0$

 $\sigma_{xy} \neq 0$
 $\rho \neq 0$

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