STAT 802 Multivariate Analysis September 23, 2003

Here is a brief summary of today's lecture (now that I have resurrected my computer):

p 150 form of $N_p(\mu,\Sigma)$ density is c $\exp(-d^2/2)$

p 163 Method for computing conditional distributions for $N_p(\mu,\Sigma)$ See Example 4.7 for bivariate and **Exercise 4.7**

p 168 form of joint density of random sample from $N_p(\mu,\Sigma)$ is $c^n \exp(-\sum_i d_i^2/2)$. Try **Exercise 4.2**

p 171 mle's of μ,Σ are $\bar{x}$ *and* S_n (not S). Also, mle of $f(\theta)$ is f(mle of θ)

p 174 Sampling distributions of $\bar{x}$ *and* S_n

p 176 Central Limit Theorem for multivariate random vector. **Exercise 4.21**

p 194 Transformations to Normality: counts use square root, proportions use logit. **Exercise 4.27**

p 211 (in Ch 5) T^2 statistic can be evaluated using F distribution. **Exercise 5.1**

Next time – More from Ch 5 but not much about simultaneous CIs.