

A. Paper discussion

- Poisson likelihood assumes $\text{mean} = \text{var.}$
 - this means that the variance increases if the mean increases
 - "often a useful relationship"
 - gives intuition to terms of "under" & "overdispersed"

B. GLMs

1. Bernoulli distribution, the exponential family, and conjugate priors
 - Beta dist. is conjugate prior for Bernoulli
 - exponential family of dist.
 - have sufficient statistics
 - have conjugate priors (that are also exponential family dist.)
2. Linear classification models
 - generative model: vs. discriminative model?