Recall that the **one-parameter canonical exponential family** have pdf/pmf parametrized by θ of the form

$$f_\theta(y) = \exp\left(\frac{y\theta - b(\theta)}{\phi} + c(y,\phi)\right)$$

where b and c are **known** functions, and ϕ is a **known** number referred to as the **dispersion parameter** . The function $b(\theta)$ is also known as the **log-partition function** .

Note that $b(\theta)$ does not depend on y and $c(y,\phi)$ does not depend on θ.

Discussion

Show Discussion

Topic: Unit 7 Generalized Linear Models:Lecture 21: Introduction to Generalized Linear Models; Exponential Families / 10. One-Parameter Canonical Exponential Families