





and the first two terms in the expansion of the log-likelihood function are

$$\ell(\theta) = \frac{1}{2} \sum_{i=1}^n \left[-\log(2\pi) - \log(\lambda_i) - \frac{\theta_i}{\lambda_i} + \frac{1}{2} \theta_i^2 \right].$$

It follows that the maximum likelihood estimate of θ is given by

$$\hat{\theta}_i = \lambda_i \left(1 + \sqrt{1 + \frac{2\lambda_i}{\theta_i}} \right)^{-1}, \quad i = 1, \dots, n.$$

It is clear from the above that the MLEs are not unique if there are any observations $\lambda_i < 0$.

It is also clear that the MLEs are not unique if there are any observations $\lambda_i = 0$. In this case, the MLEs are given by

$$\hat{\theta}_i = \lambda_i \left(1 + \sqrt{1 + \frac{2\lambda_i}{\theta_i}} \right)^{-1}, \quad i = 1, \dots, n,$$

where the value of λ_i is replaced by a small positive number if it is zero.

It is also clear that the MLEs are not unique if there are any observations $\lambda_i = \infty$. In this case, the MLEs are given by

$$\hat{\theta}_i = \lambda_i \left(1 + \sqrt{1 + \frac{2\lambda_i}{\theta_i}} \right)^{-1}, \quad i = 1, \dots, n,$$

where the value of λ_i is replaced by a large positive number if it is infinity.

It is also clear that the MLEs are not unique if there are any observations $\lambda_i < -\infty$. In this case, the MLEs are given by

$$\hat{\theta}_i = \lambda_i \left(1 + \sqrt{1 + \frac{2\lambda_i}{\theta_i}} \right)^{-1}, \quad i = 1, \dots, n,$$

where the value of λ_i is replaced by a small negative number if it is minus infinity.

It is also clear that the MLEs are not unique if there are any observations $\lambda_i = \pm \infty$. In this case, the MLEs are given by

$$\hat{\theta}_i = \lambda_i \left(1 + \sqrt{1 + \frac{2\lambda_i}{\theta_i}} \right)^{-1}, \quad i = 1, \dots, n,$$

where the value of λ_i is replaced by a large positive or negative number if it is plus or minus infinity respectively.

It is also clear that the MLEs are not unique if there are any observations $\lambda_i < 0$ and $\lambda_i = \infty$. In this case, the MLEs are given by

$$\hat{\theta}_i = \lambda_i \left(1 + \sqrt{1 + \frac{2\lambda_i}{\theta_i}} \right)^{-1}, \quad i = 1, \dots, n,$$

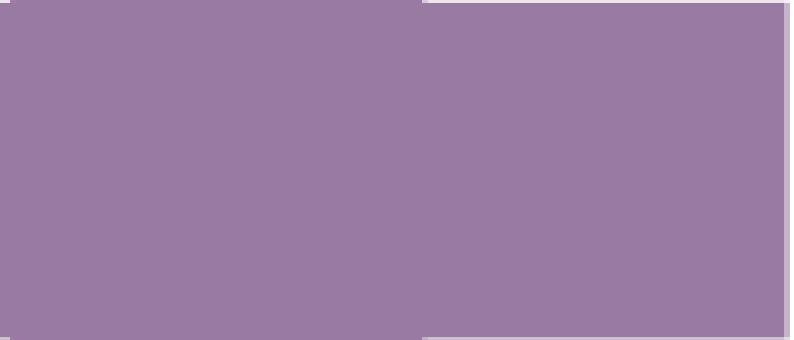
where the value of λ_i is replaced by a small positive or negative number if it is zero or infinity respectively.

It is also clear that the MLEs are not unique if there are any observations $\lambda_i < 0$ and $\lambda_i = -\infty$. In this case, the MLEs are given by

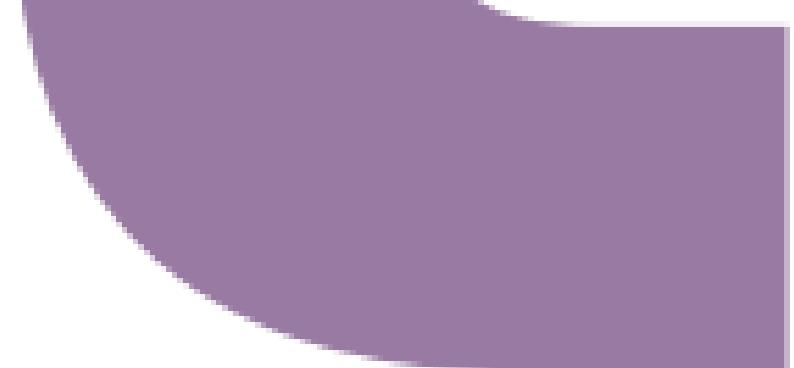
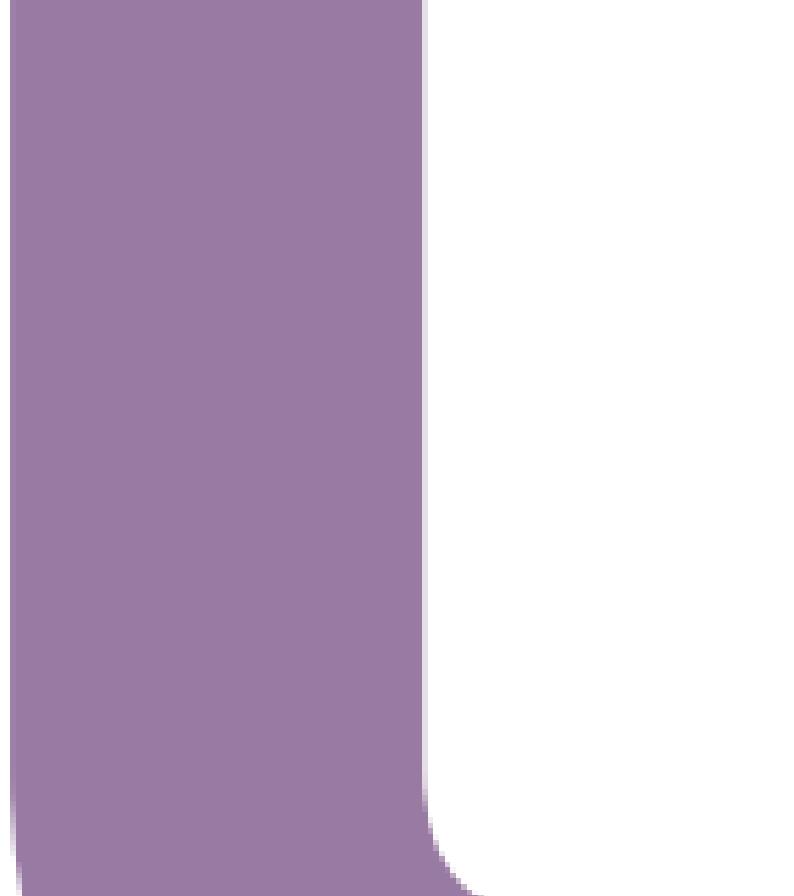
$$\hat{\theta}_i = \lambda_i \left(1 + \sqrt{1 + \frac{2\lambda_i}{\theta_i}} \right)^{-1}, \quad i = 1, \dots, n,$$







1



verdiqionairéert



Audory

Upload your idea

Nocta ▾

What's the point? (Nocta remix)

Nocta

Bass house

This is my entry to SKIO MUSIC's remix contest of the song by Kelland. I wanted to experience with unique sounds to build up a magical atmosphere, while it still delivers a punch. Any thoughts?



1

less than a minute ago

