

$$\mu_1 = \frac{n\lambda \bar{X}_n + \lambda_0 \mu_0}{n\lambda + \lambda_0} = t \bar{X}_n + (1-t) \mu_0$$

$$t = \frac{n\lambda}{n\lambda + \lambda_0}$$

prior mean  $\mu_0$   
data mean  $\bar{X}_n$

