

27

$X_k \sim \text{Gamma}(b, p_k)$ 2006. $\Rightarrow M_{X_k}(t) = \left(1 - \frac{t}{b}\right)^{-p_k}$

$$M_Z(t) = \prod_{k=1}^n M_{X_k}(t) = \prod_{k=1}^n \left(1 - \frac{t}{b}\right)^{-p_k} = \left(1 - \frac{t}{b}\right)^{-\sum_{k=1}^n p_k} \sim \text{Gamma}\left(b, \sum_{k=1}^n p_k\right)$$

bo
 X_k unabhängig