

$$x_1 \in B(P) \rightarrow c x_1 + x_2 \in B(\cdot)$$

$$x_2 \in B(P)$$

$$S_{x_1, x_2} = \{0, 1\}$$

$$S_{x_1 + x_2} = \{0, 1, 2\} \notin B(\cdot)$$

$$x_1 \in b(\mu, p) \rightarrow c x_1 + x_2 \in b(\cdot)$$

$$x_2 \in b(\mu, p)$$

$$S_{x_1, x_2} = \{0, 1, \dots, n\}$$

$$S_{x_1 + x_2} = \{0, 1, \dots, 2n\}$$

$$x_1', x_2' \dots x_n' \in B(P) \rightarrow \sum x_i' = x_1 \in b(\mu, p)$$

$$x_1'', x_2'' \dots x_n'' \in B(P) \rightarrow \sum x_i'' = x_2 \in b(\mu, p)$$

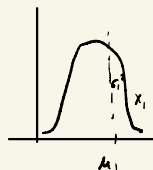
$$x_1 + x_2 = \sum_{i=1}^n x_i' + \sum_{i=1}^n x_i''$$

$$x_1 \in b(n_1, p)$$

$$x_2 \in b(n_2, p) \quad x_1 + x_2 \in b(n_1 + n_2, p)$$

$$x_1 \in b(n_1, p_1)$$

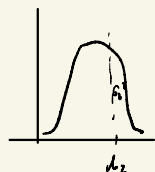
$$x_2 \in b(n_2, p_2) \quad x_1 + x_2 \notin b(2n_1, \cdot)$$



$$x_1 \in \chi^2(n_1)$$

$$x_2 \in \chi^2(n_2) \quad x_1 + x_2 \in \chi^2(n_1 + n_2)$$

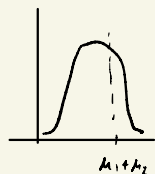
$$x_2 \in \chi^2(n_2)$$



$$x_1 \in N(\mu_1, \sigma_1^2)$$

$$x_2 \in N(\mu_2, \sigma_2^2) \quad x_1 + x_2 \in NC$$

$$x_2 \in N(\mu_2, \sigma_2^2)$$



$$E[x_1 + x_2] = E(x_1) + E(x_2) = \mu_1 + \mu_2$$

$$V[x_1 + x_2] = 1^2 V[x_1] + V[x_2] = \sigma_1^2 + \sigma_2^2$$