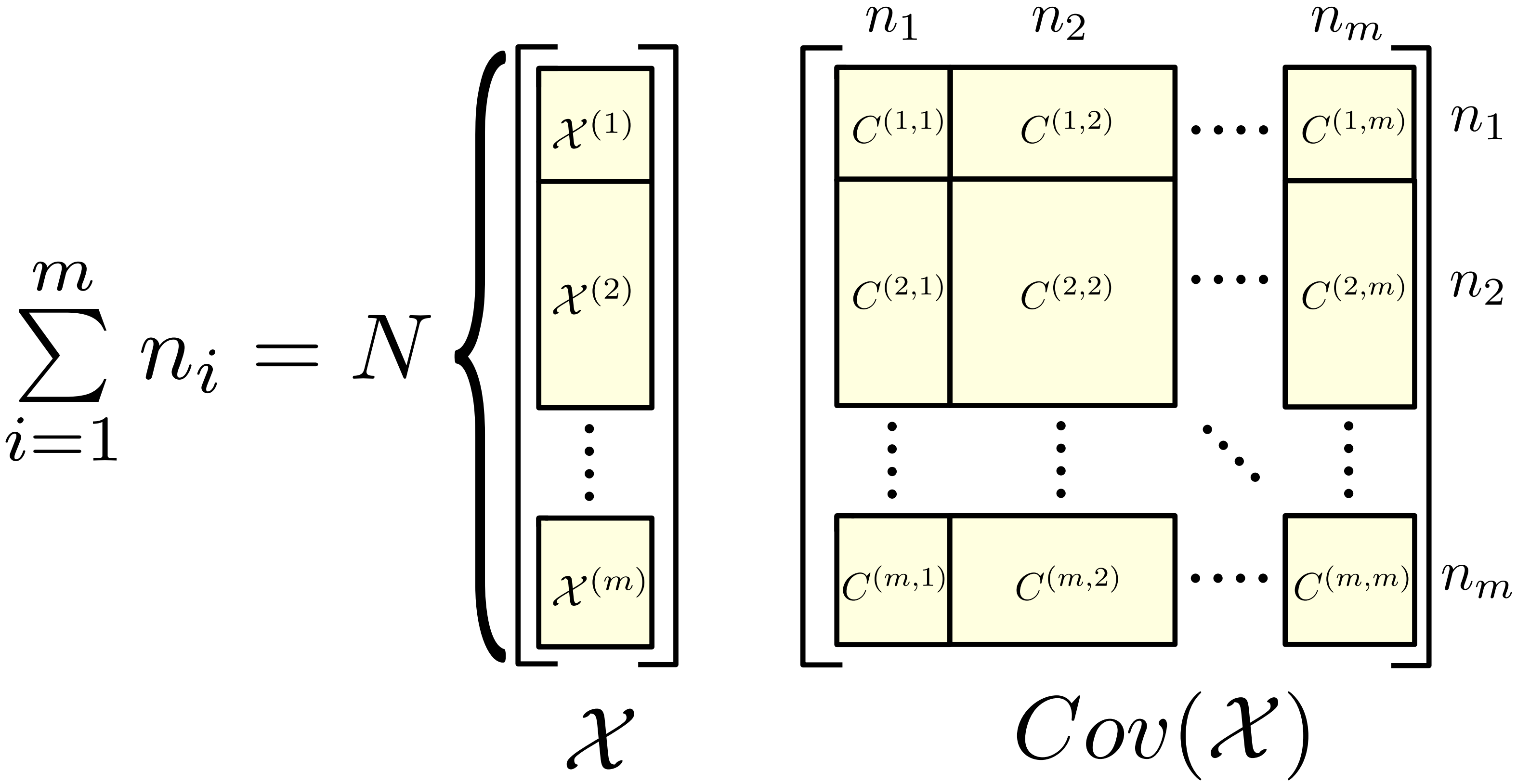
$\sum_{i=1}^{m} n_i = N$
$\mathcal{X}^{(1)}$
$\mathcal{X}^{(2)}$
$\mathcal{X}^{(m)}$
$\mathcal{X}$
n_1 n_2 n_m
$C^{(1,1)}$ $C^{(1,2)}$ $C^{(1,m)}$
$C^{(2,1)}$ $C^{(2,2)}$ $C^{(2,m)}$
$C^{(m,1)}$ $C^{(m,2)}$ $C^{(m,m)}$
n_1
n_2
n_m
$Cov(\mathcal{X})$