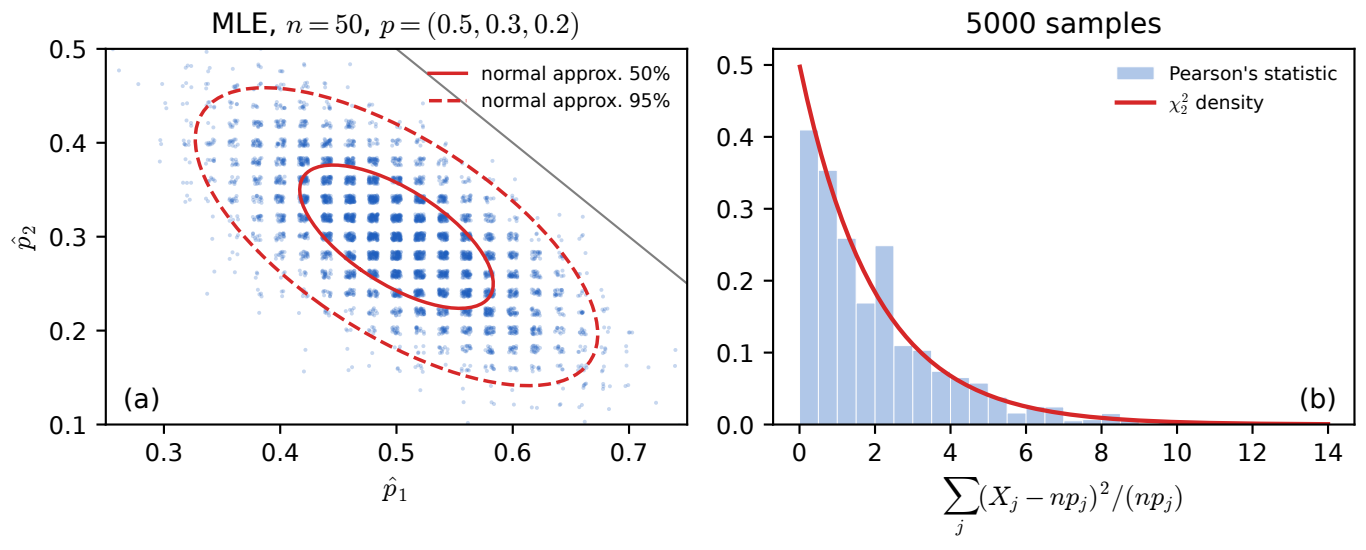

MLE, $n = 50$, $p = (0.5, 0.3, 0.2)$
normal approx. 50%
normal approx. 95%
(a)
$\hat{p}_1$
$\hat{p}_2$
0.1
0.2
0.3
0.4
0.5
0.6
0.7
5000 samples
Pearson's statistic
χ^2_2 density
(b)
0
2
4
6
8
10
12
14
$\sum_j (X_j - np_j)^2/(np_j)$