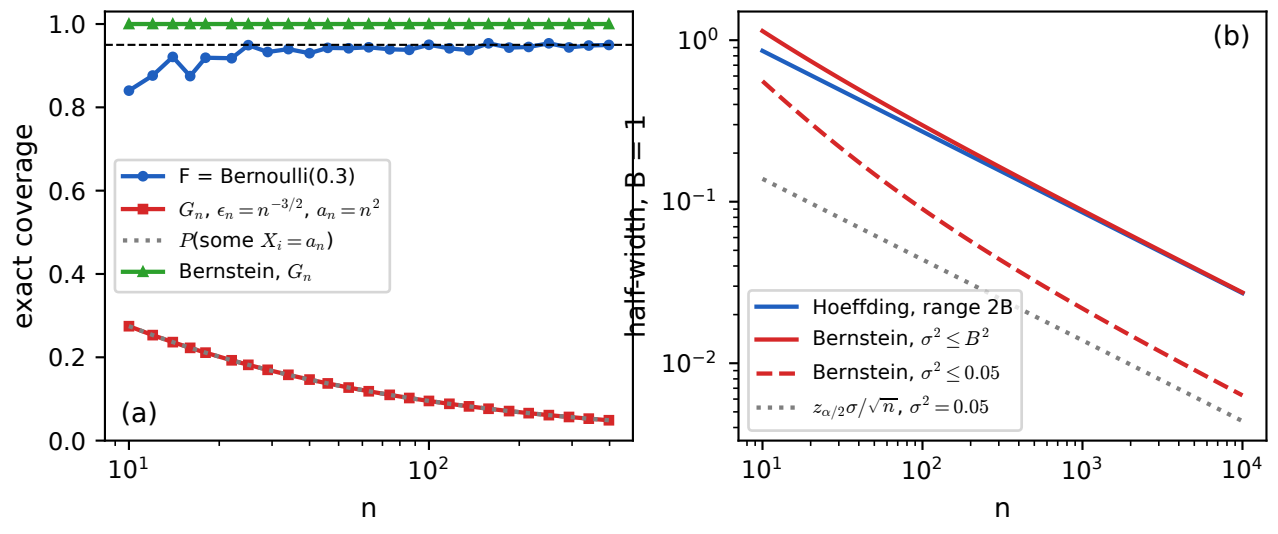

exact coverage
1.0
0.8
0.6
0.4
0.2
0.0
F = Bernoulli(0.3)
G_n, $\epsilon_n = n^{-3/2}$, $a_n = n^2$
P(some $X_i = a_n$)
Bernstein, G_n
(a)
10^1
10^2
n
half-width, B = 1
10^0
10^{-1}
10^{-2}
(b)
Hoeffding, range 2B
Bernstein, $\sigma^2 \leq B^2$
Bernstein, $\sigma^2 \leq 0.05$
$z_{\alpha/2}\sigma/\sqrt{n}$, $\sigma^2 = 0.05$
10^1
10^2
10^3
10^4
n