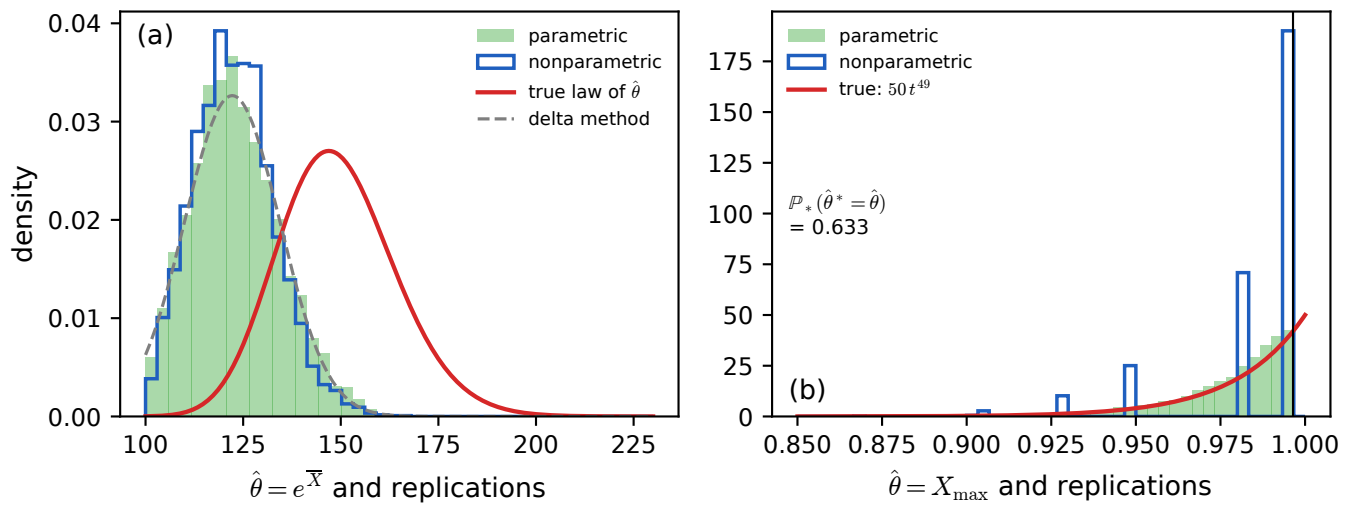

(a)
parametric
nonparametric
true law of $\hat{\theta}$
delta method
density
0.04
0.03
0.02
0.01
0.00
100
125
150
175
200
225
$\hat{\theta} = e^{\overline{X}}$ and replications
parametric
nonparametric
true: $50t^{49}$
$\mathbb{P}_*(\hat{\theta}^* = \hat{\theta})$
= 0.633
(b)
175
150
125
100
75
50
25
0
0.850
0.875
0.900
0.925
0.950
0.975
1.000
$\hat{\theta} = X_{\max}$ and replications