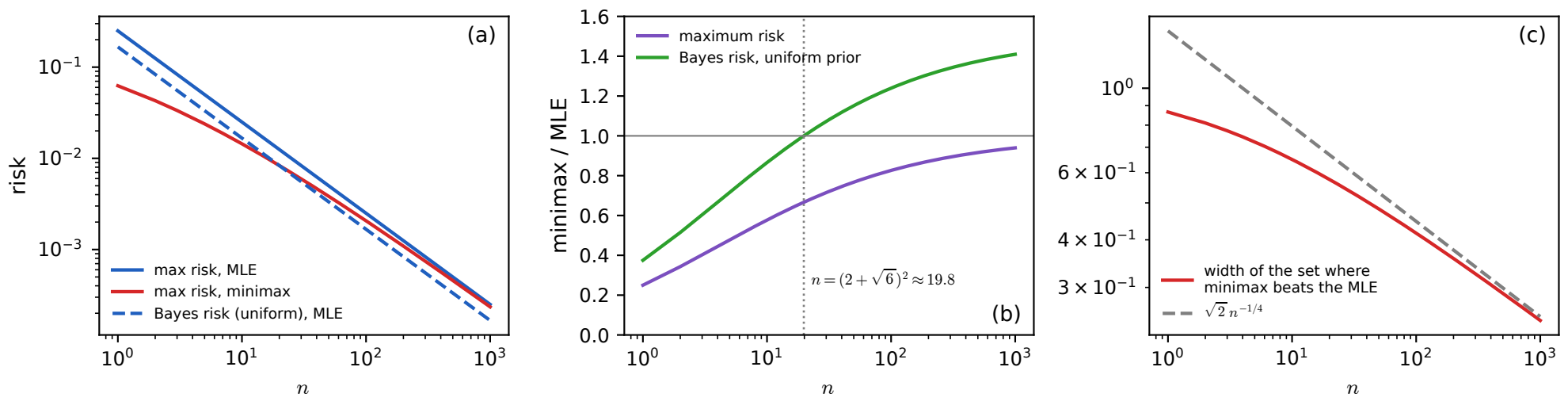

(a)
risk
10^{-1}
10^{-2}
10^{-3}
max risk, MLE
max risk, minimax
Bayes risk (uniform), MLE
10^0
10^1
10^2
10^3
n
(b)
minimax / MLE
maximum risk
Bayes risk, uniform prior
$n = (2+\sqrt{6})^2 \approx 19.8$
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
n
(c)
10^0
6×10^{-1}
4×10^{-1}
3×10^{-1}
width of the set where
minimax beats the MLE
$\sqrt{2}\, n^{-1/4}$
n