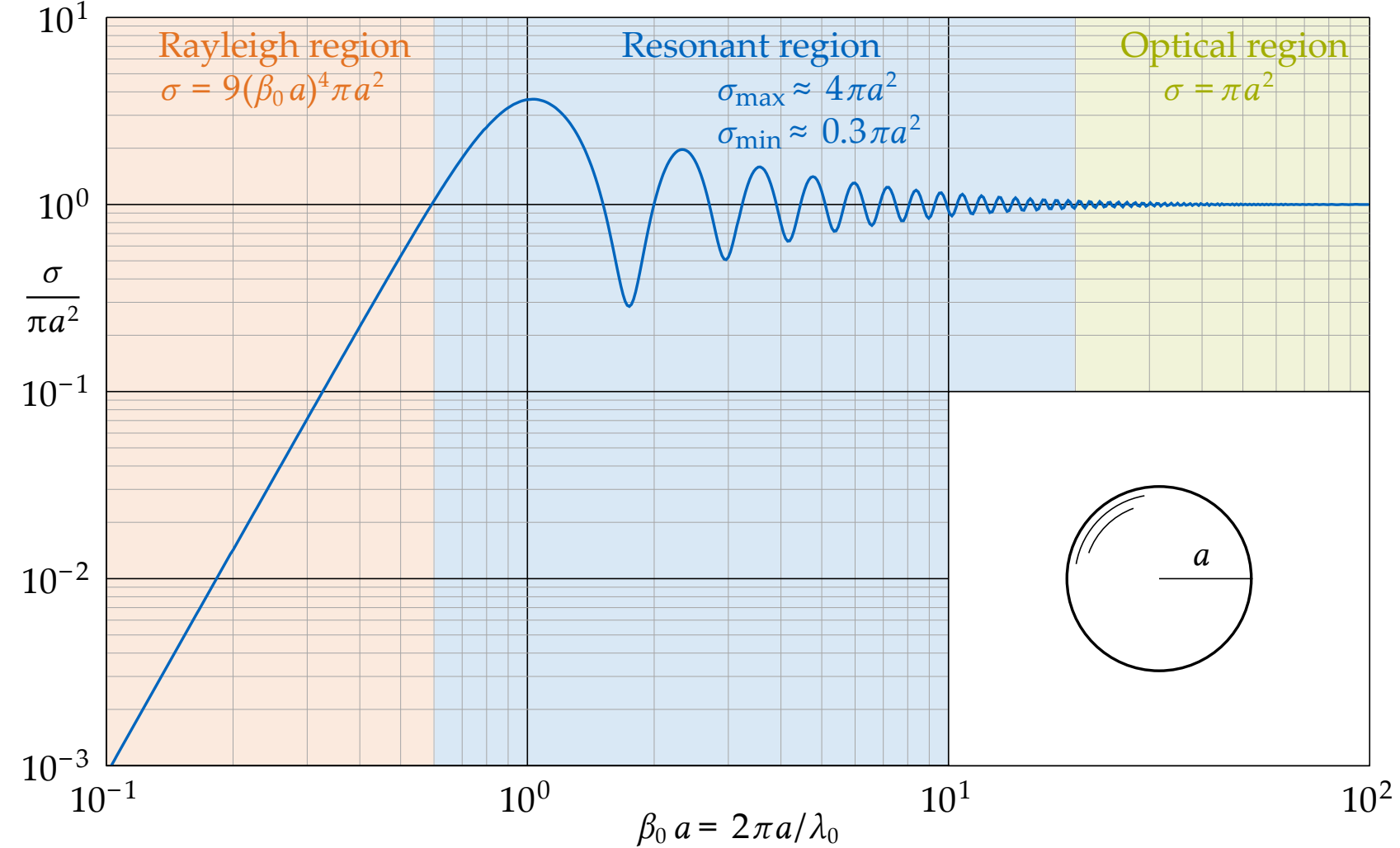
Rayleigh region
$\sigma = 9(\beta_0 a)^4 \pi a^2$
Resonant region
$\sigma_{max} \approx 4\pi a^2$
$\sigma_{min} \approx 0.3\pi a^2$
Optical region
$\sigma = \pi a^2$
10^1
10^0
$\frac{\sigma}{\pi a^2}$
10^{-1}
10^{-2}
10^{-3}
10^{-1}
10^0
10^1
10^2
$\beta_0 a = 2\pi a/\lambda_0$
a