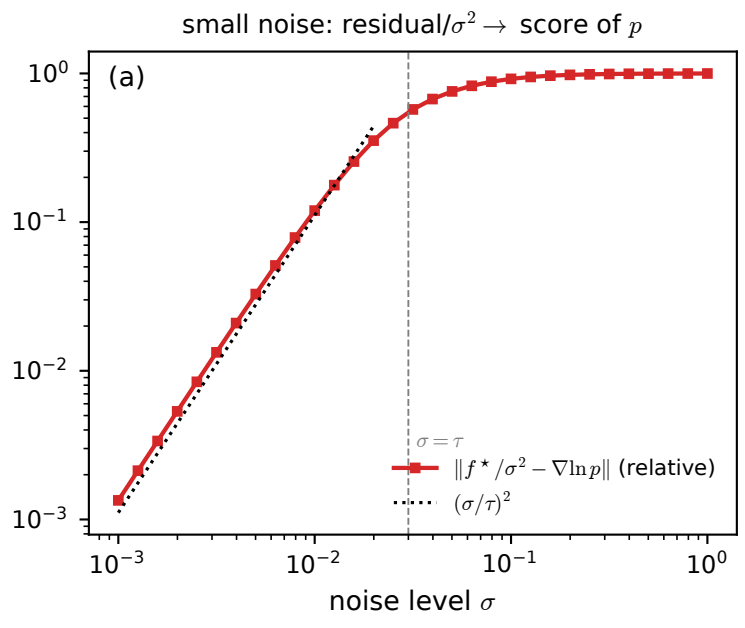
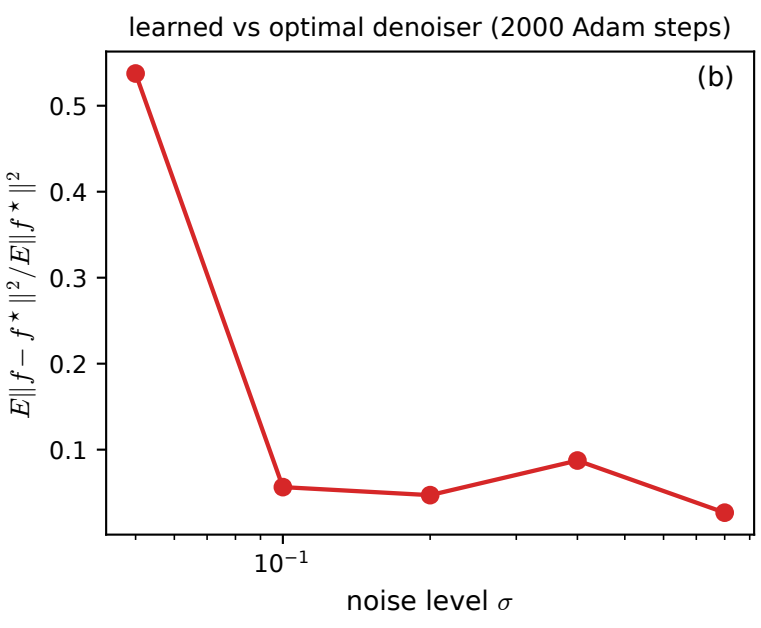
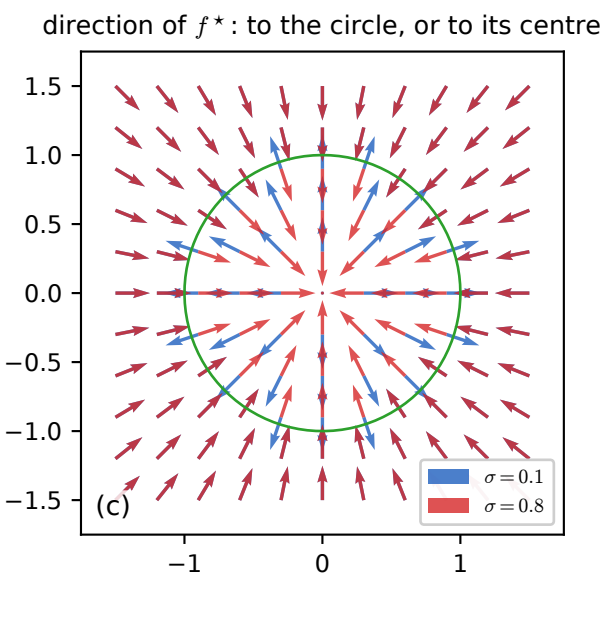

small noise: residual/$\sigma^2 \to$ score of p
(a)
10^0
10^{-1}
10^{-2}
10^{-3}
10^{-3}
10^{-2}
10^{-1}
10^0
noise level σ
$\sigma = \tau$
$\|f^\star/\sigma^2 - \nabla \ln p\|$ (relative)
$(\sigma/\tau)^2$


learned vs optimal denoiser (2000 Adam steps)
(b)
$E\|f - f^\star\|^2 / E\|f^\star\|^2$
0.5
0.4
0.3
0.2
0.1
10^{-1}
noise level σ


direction of $f^\star$: to the circle, or to its centre
(c)
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
−1
0
1
$\sigma = 0.1$
$\sigma = 0.8$