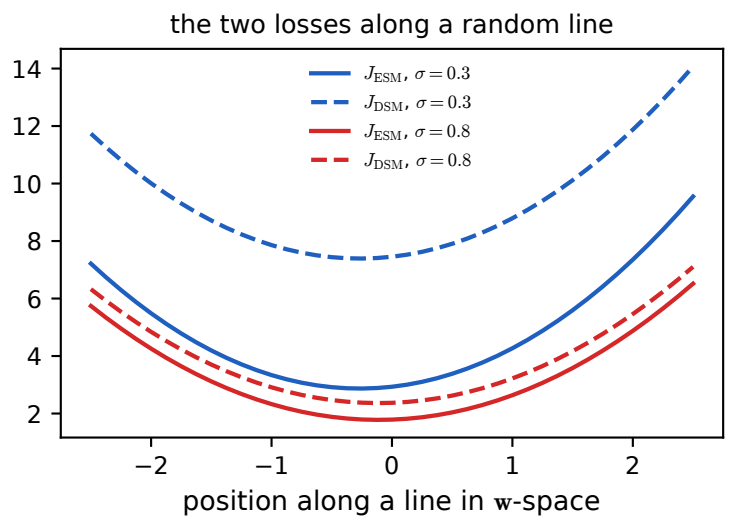
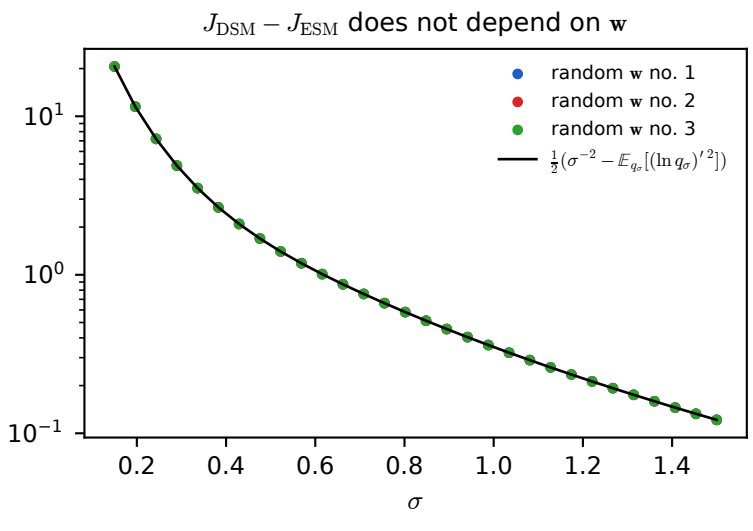
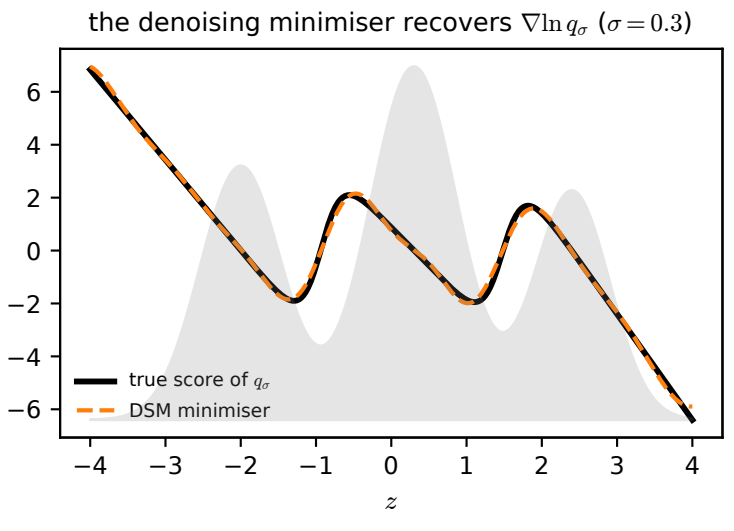

the two losses along a random line
$J_{\mathrm{ESM}},\ \sigma = 0.3$
$J_{\mathrm{DSM}},\ \sigma = 0.3$
$J_{\mathrm{ESM}},\ \sigma = 0.8$
$J_{\mathrm{DSM}},\ \sigma = 0.8$
14
12
10
8
6
4
2
−2
−1
0
1
2
position along a line in $\mathbf{w}$-space


$J_{\mathrm{DSM}} - J_{\mathrm{ESM}}$ does not depend on $\mathbf{w}$
random $\mathbf{w}$ no. 1
random $\mathbf{w}$ no. 2
random $\mathbf{w}$ no. 3
$\frac{1}{2}(\sigma^{-2} - \mathbb{E}_{q_\sigma}[(\ln q_\sigma)'^2])$
10^1
10^0
10^{-1}
0.2
0.4
0.6
0.8
1.0
1.2
1.4
σ


the denoising minimiser recovers $\nabla \ln q_\sigma$ $(\sigma = 0.3)$
6
4
2
0
−2
−4
−6
true score of q_σ
DSM minimiser
−4
−3
−2
−1
0
1
2
3
4
z