vizualize_topoloss

September 9, 2024
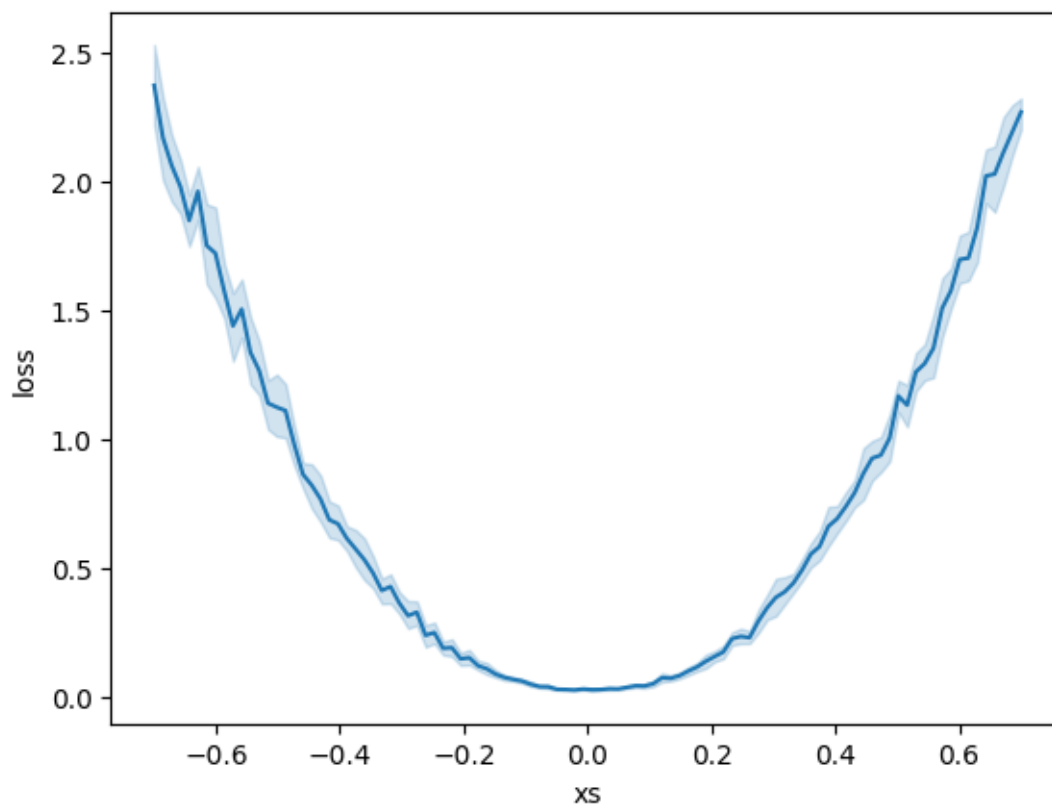
0.1 Experiments on the loss function

Plots to make - Effect of number of directions on loss and gradient - Effect of scale on loss function
and gradient

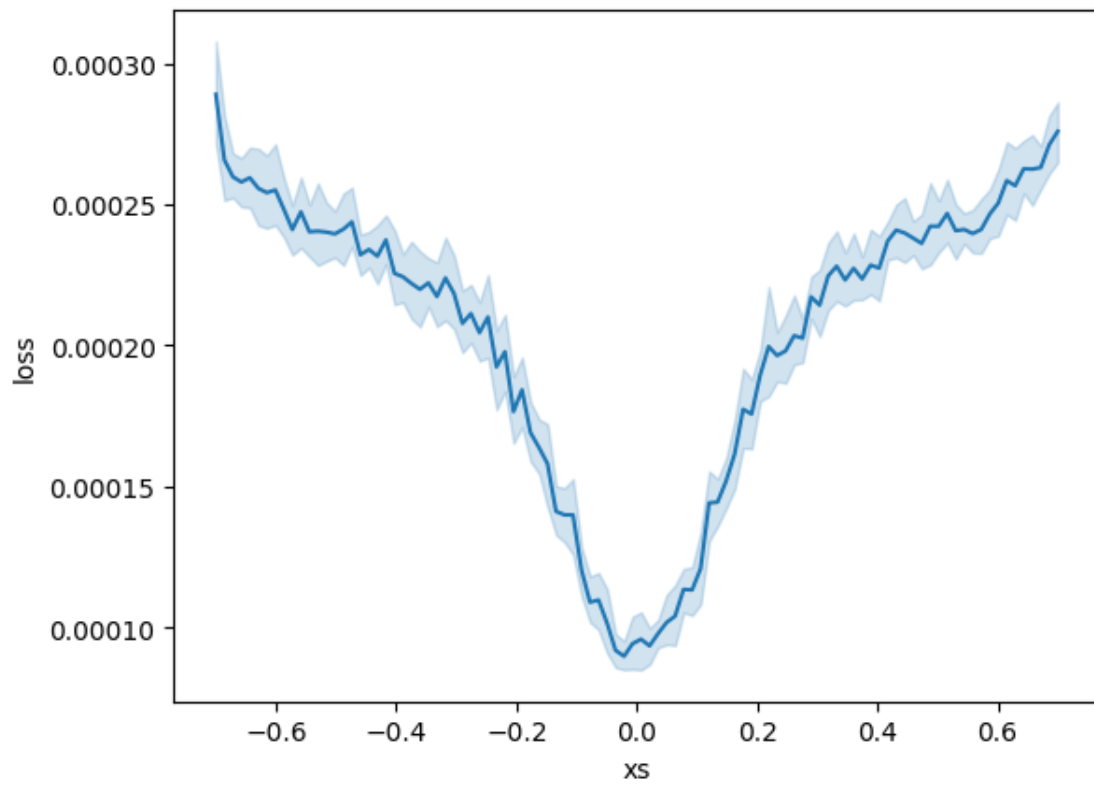# 1 Vizualization of the different loss functions

We need to rerun this with confidence intervals, there seems to be quite some variance.

```
          xs          loss type
0 -0.700000  1276.467773  kld
1 -0.700000     2.234987   cd
2 -0.700000     0.000275  mse
3 -0.685859  1275.335938  kld
4 -0.685859     2.189975   cd

<Axes: xlabel='xs', ylabel='loss'>
```
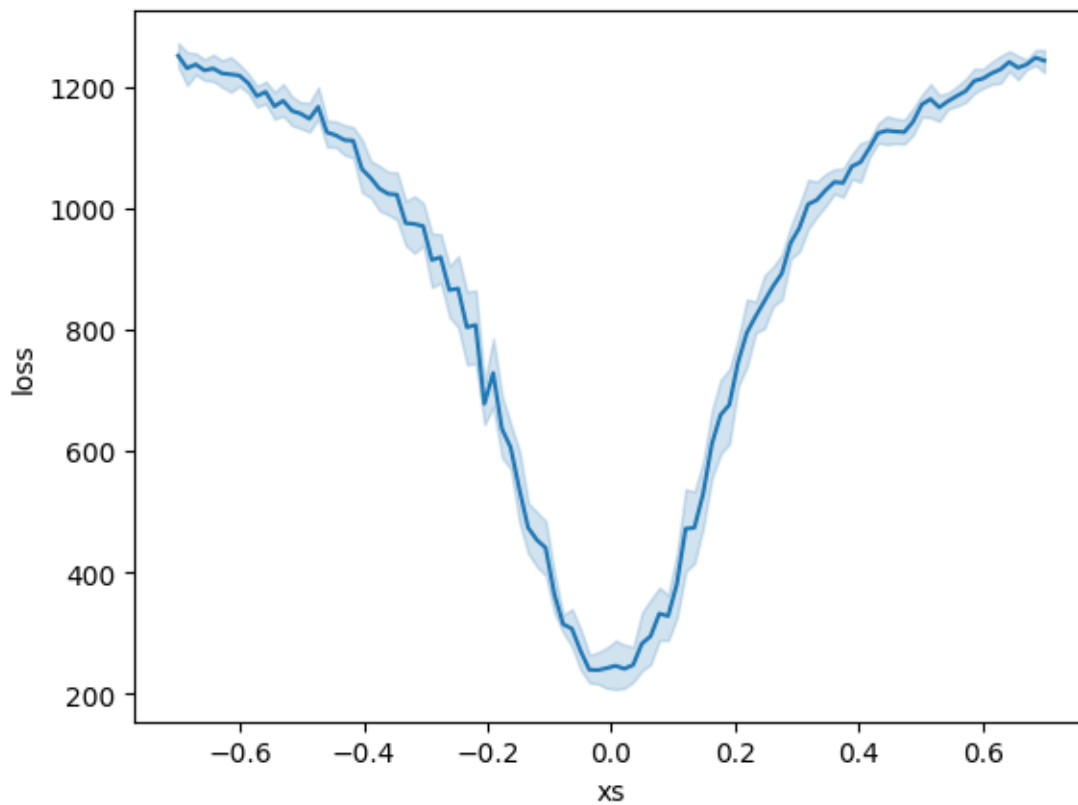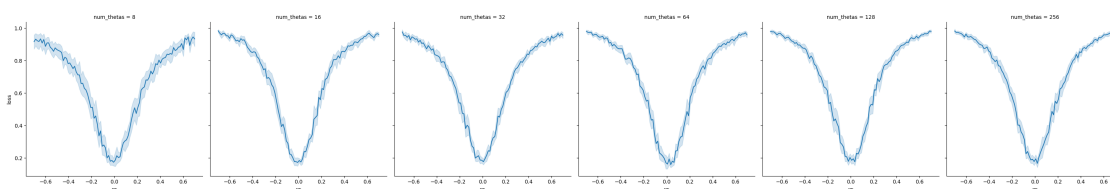
```
<Axes: xlabel='xs', ylabel='loss'>
```

<Axes: xlabel='xs', ylabel='loss'>

2 Visualization of the number of directions used in the ECT

```
<seaborn.axisgrid.FacetGrid at 0x7fbe0c1cb700>
```


3 Resolution

```
       loss        xs  resolution
0  0.962151 -0.700000           8
1  0.995081 -0.685859           8
2  0.959757 -0.671717           8
3  0.924174 -0.657576           8
```

4 0.930819 -0.643434   8

<seaborn.axisgrid.FacetGrid at 0x7fbdfb8f9090>