Assignment 8 Plots

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Assignment 8

Problem 1

First 10 functions in U
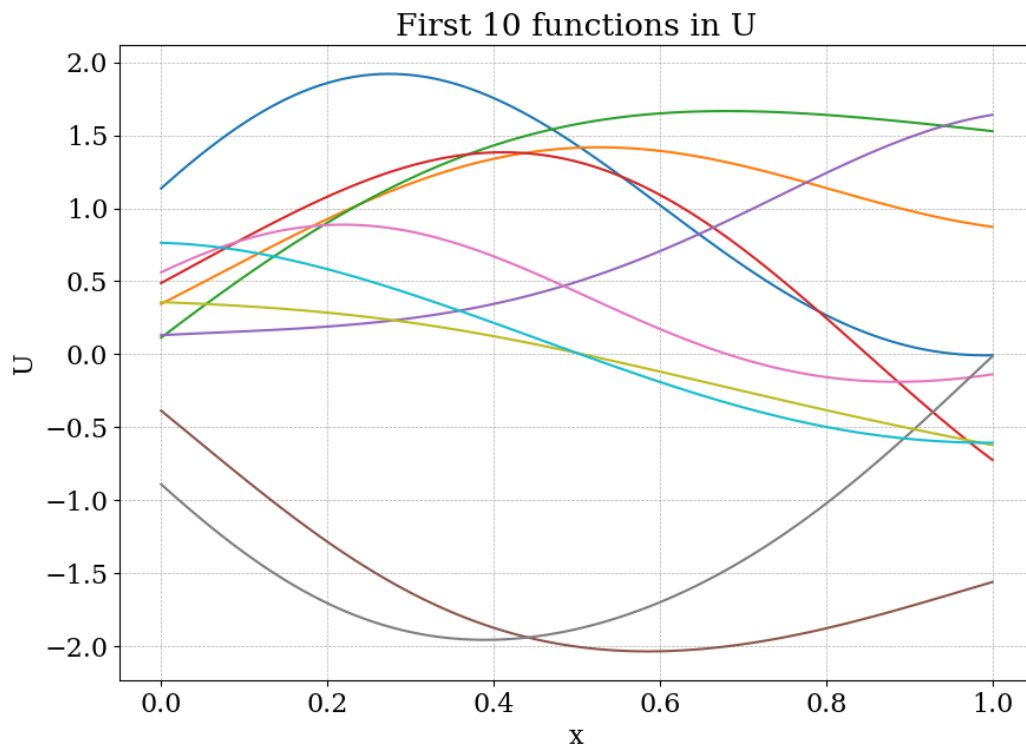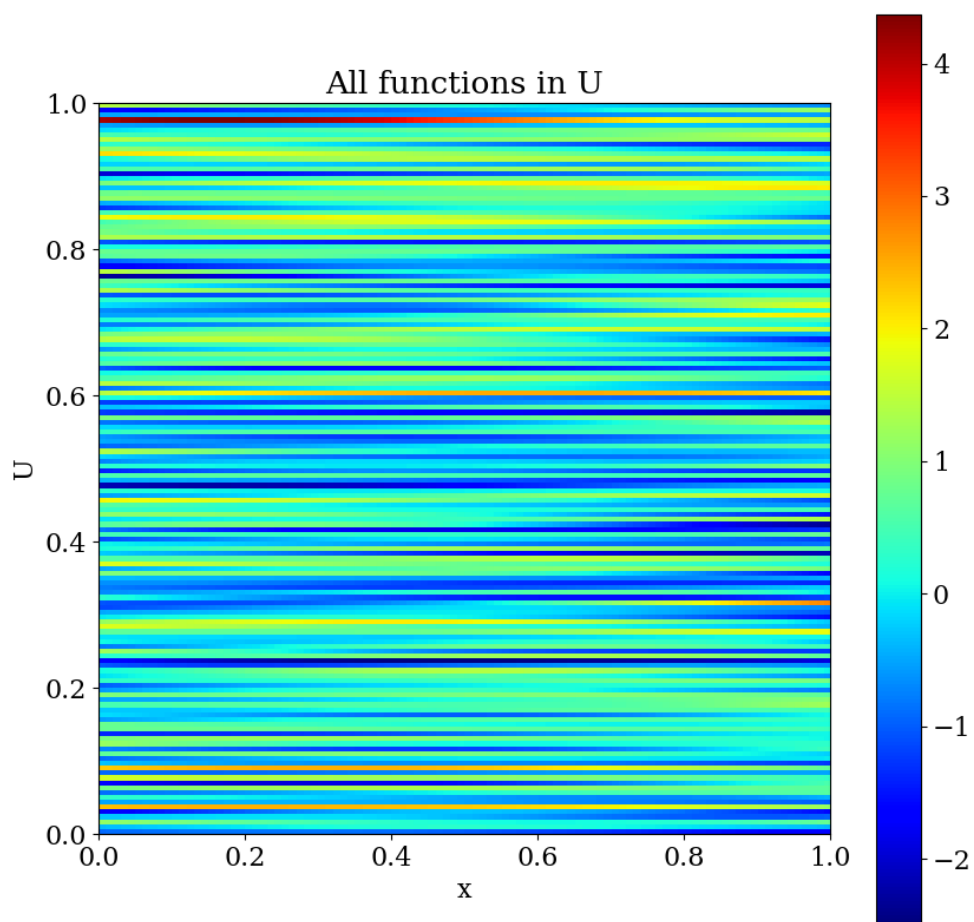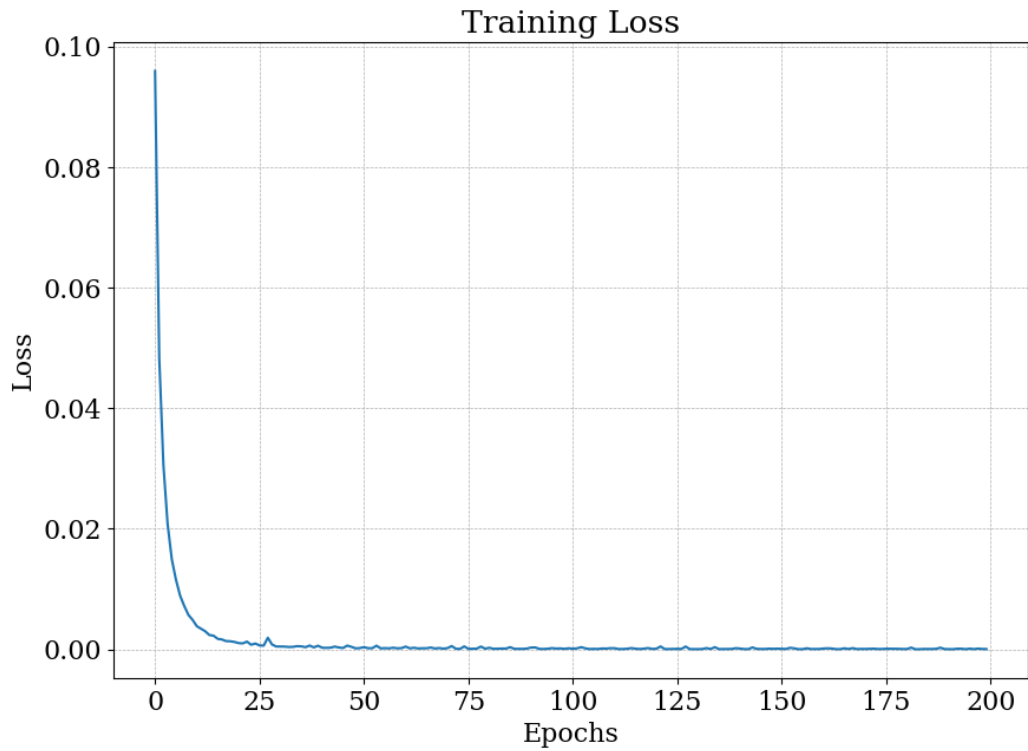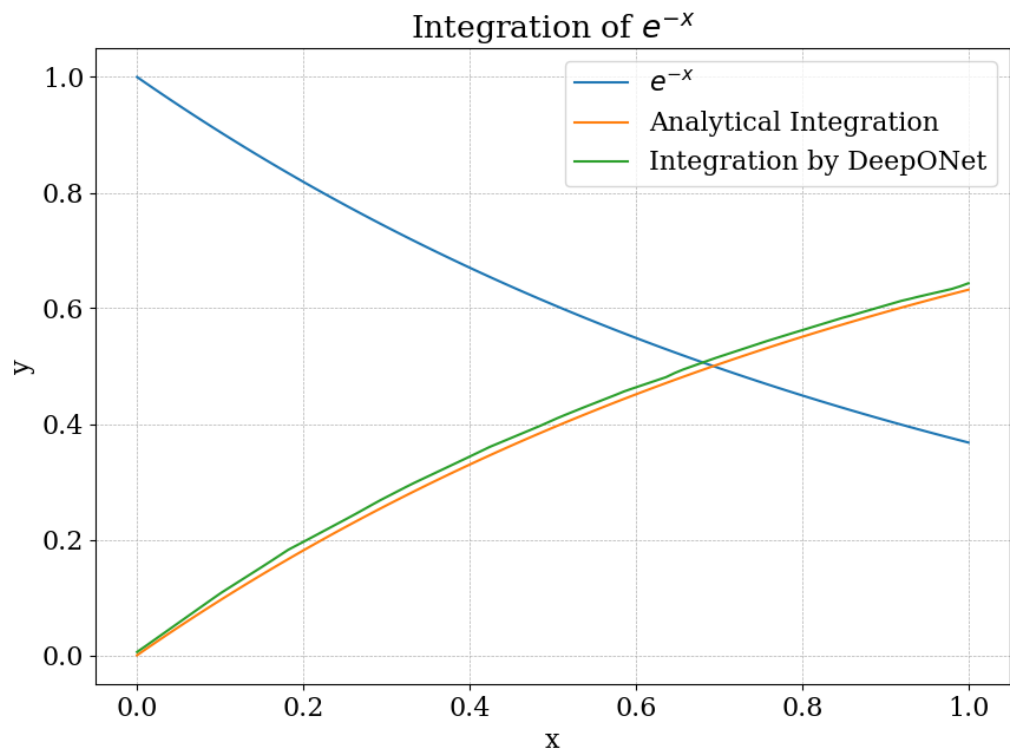
This is a plot of the first 10 functions in the training set.

This is an image plot showing all the functions given in the training set.

- There are 150 functions.
- 100 points are in each function.

Training Loss

This graph shows the training loss with number of epochs. We can see that the loss decreases very sharply.

Integration of e^{-x}

Next, we will try to evaluate our anti-derivative operator on brand new functions. The first function used is e^{-x}. The function, its analytical integration and the integration learned by DeepONet is plotted on a single plot.

Integration of $\cos(5x)$
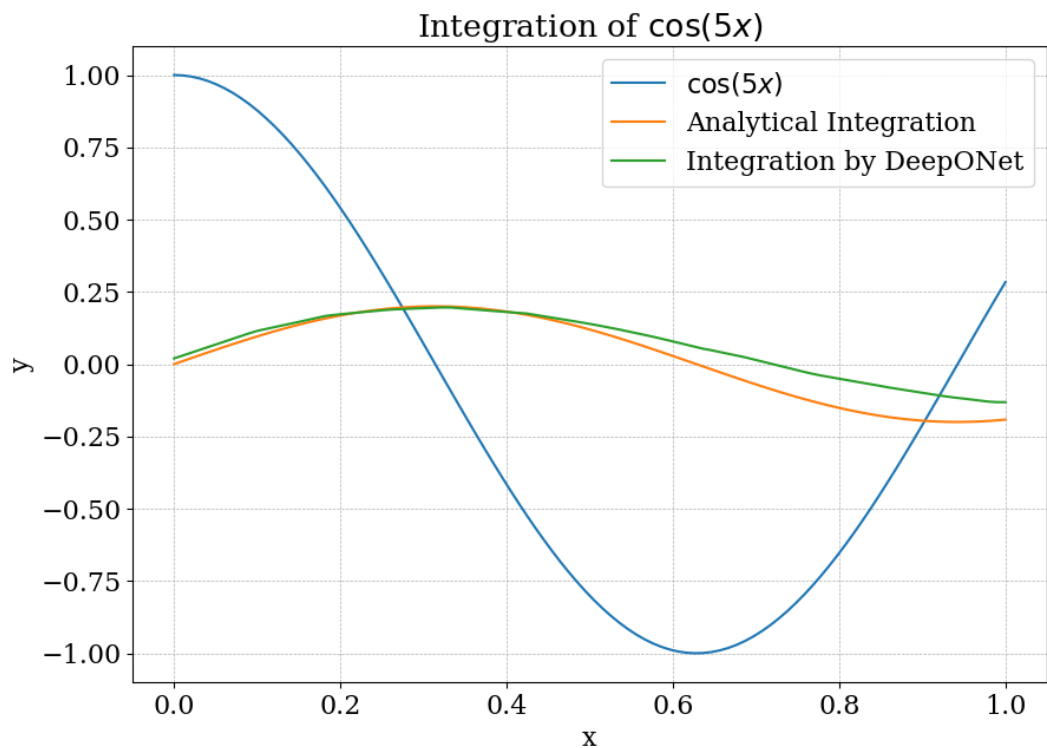
This is for the function $\cos(5x)$.

Integration of $\cos(x)\sin(x)$
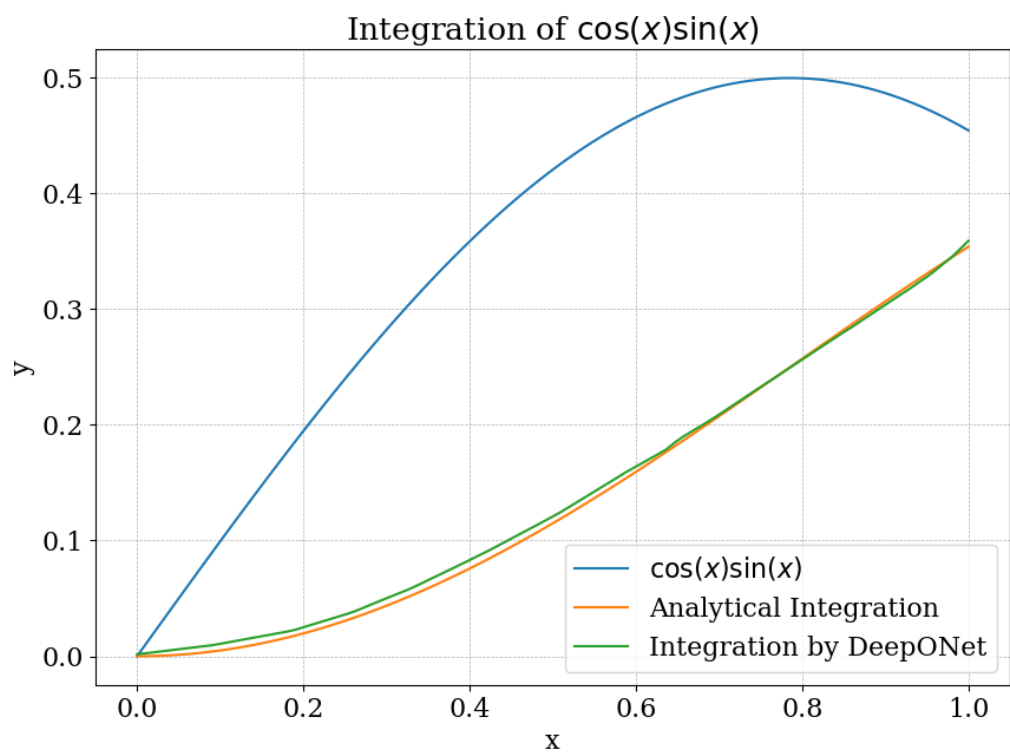
And finally, this is for the function $\cos(x)\sin(x)$.