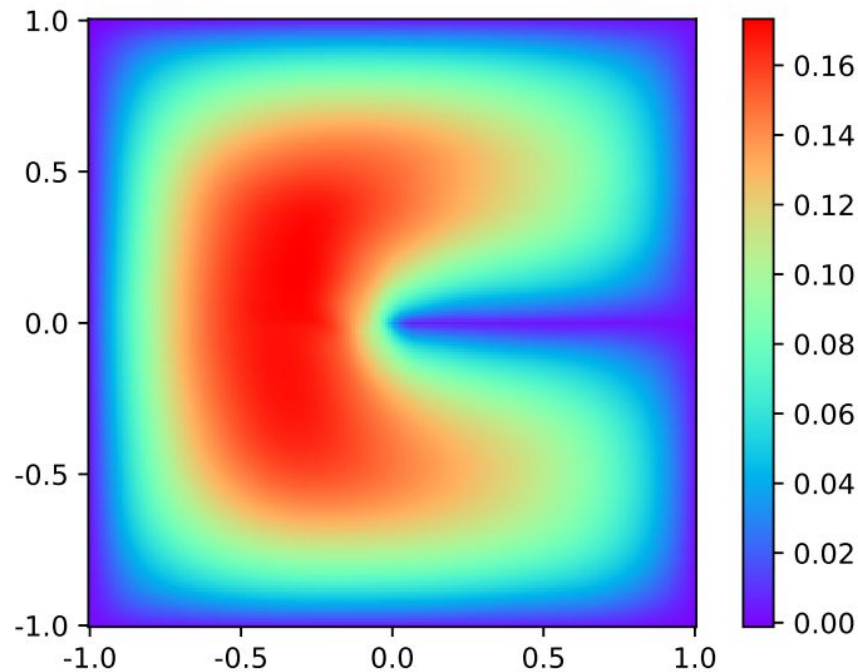
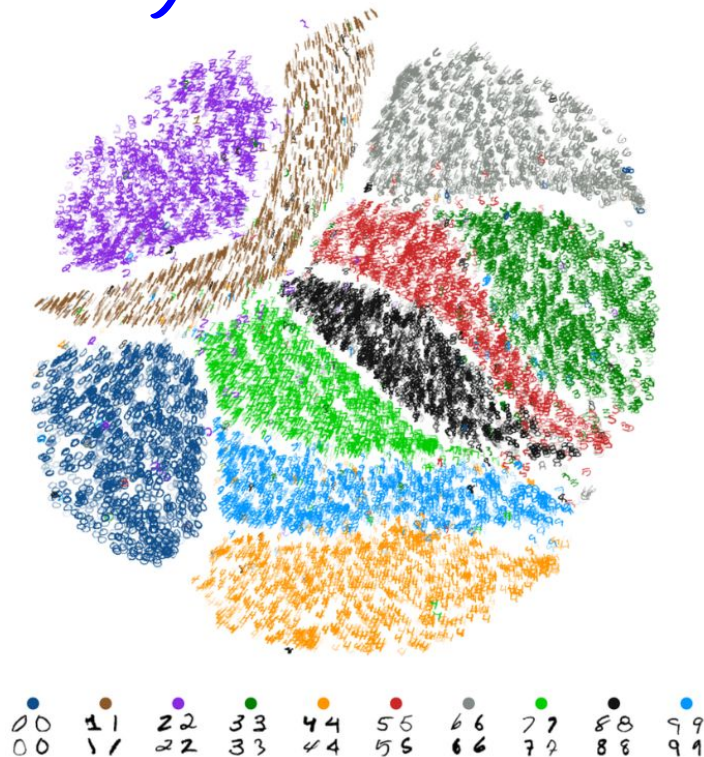


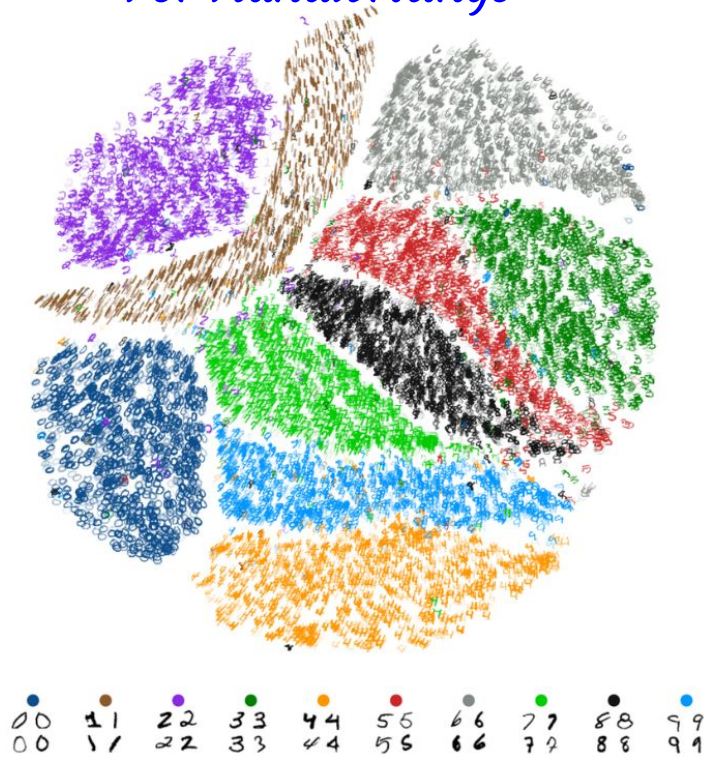
# *A Taste of Deep Learning through Python*

*Summer 2022*

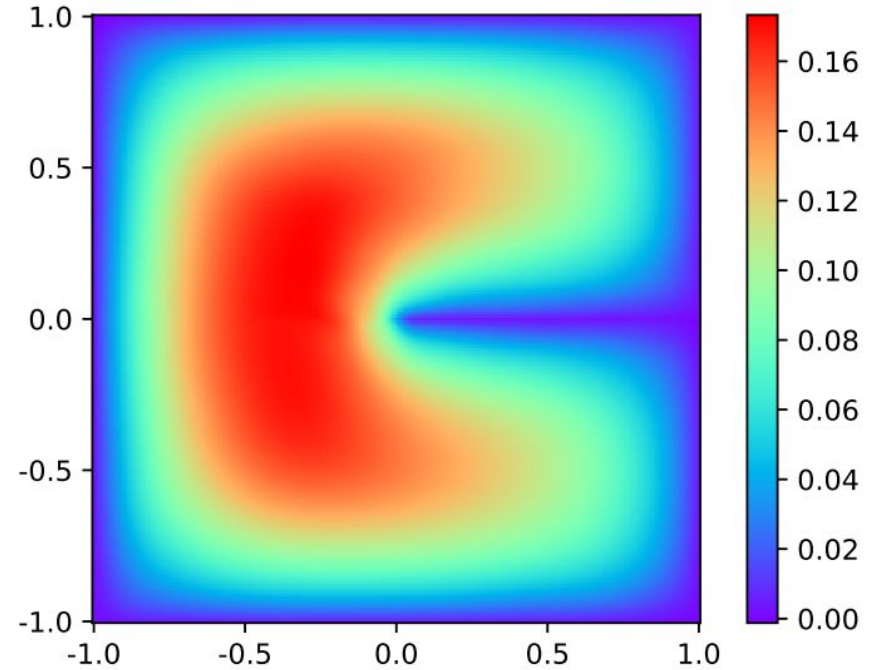
*Any relation between the two problems?*



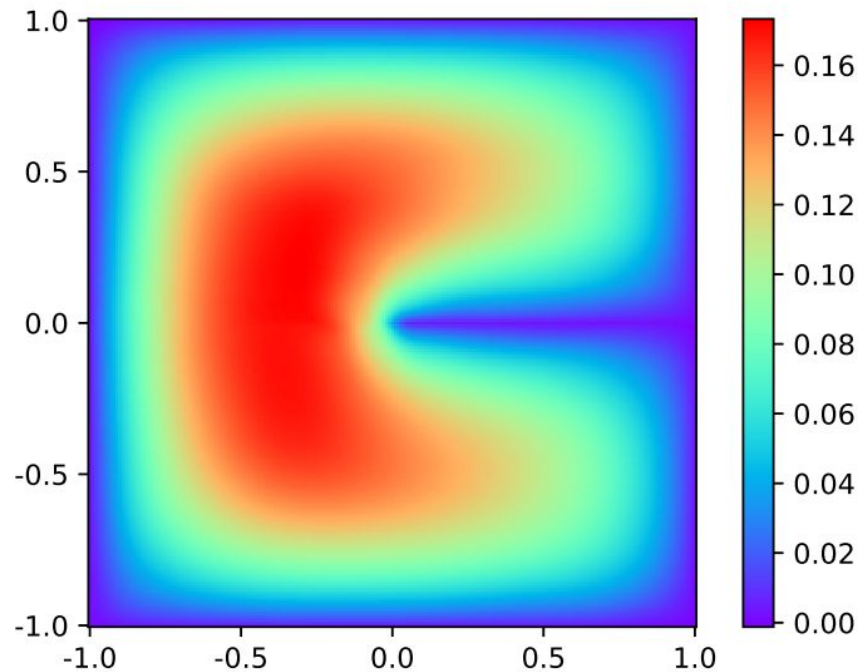
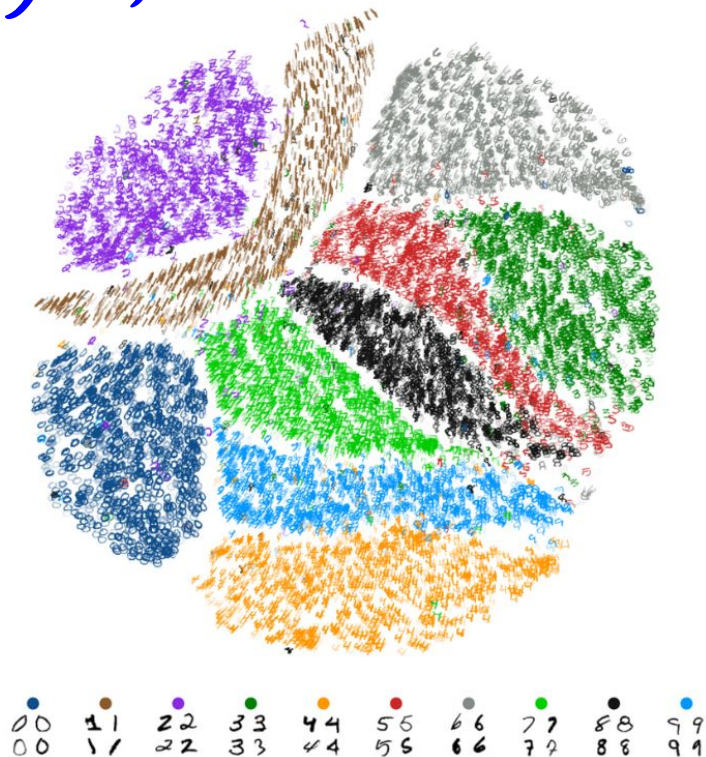
## *Classification Problem For Handwritings*



## *Boundary Value Problem On Physical System*



*Yes, there are some colorings on both sides*

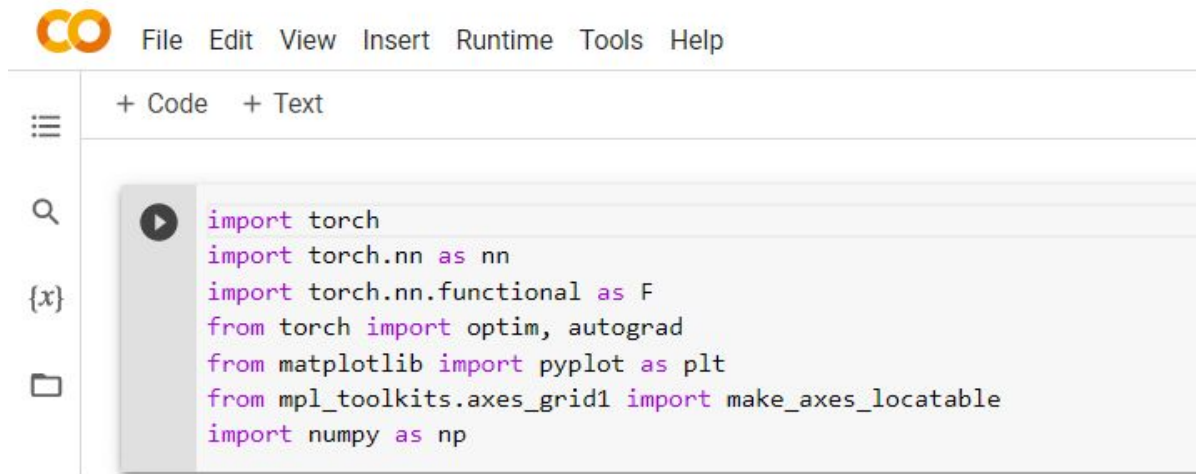


*What's more...*

*Both problems can be tackled numerically in the “Deep Learning” approach with a Python Package called PyTorch*



# *What to expect In the end of the workshop*



The screenshot shows a JupyterLab environment. At the top is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Runtime', 'Tools', and 'Help'. Below the menu bar is a toolbar with '+ Code' and '+ Text' buttons. On the left side, there is a sidebar with icons for a file explorer, a search bar, and a variable inspector. The main area is a code editor with a dark background and a play button icon on the left. The code in the editor is as follows:

```
import torch
import torch.nn as nn
import torch.nn.functional as F
from torch import optim, autograd
from matplotlib import pyplot as plt
from mpl_toolkits.axes_grid1 import make_axes_locatable
import numpy as np
```

*(Well, we may tackle the two problems with PyTorch and the deeping learning approach after a brief introduction on linear regression, composition of functions and optimization)*

# *Begin to code some deep learning programs with Python*

