Contribution ID: **104**   Type: **Lecture**

Machine Learning L3: Convolutional Neural Networks

Thursday, 19 September 2019 11:15 (1 hour)

This lecture introduces the method of using Convolutional Neural Networks (CNNs) for image based classi-fication. The lecture gives an overview of examples of popular CNN architectures and describes the func-tionality of each layer within a CNN. It uses the example of binary cross entropy to introduce the concept of a cost function and explains how this is optimised using a gradient descent algorithm and the principle of back-propagation. The lecture concludes by giving an example of how a particular CNN architecture can be implemented in Python.

Summary

Presenter: SCAIFE, Anna (University of Manchester)

Track Classification: Physics Computing