Contribution ID: **10**                                                     Type: **not specified**

# Machine Learning Part 1

*Wednesday 5 July 2023 11:15 (45 minutes)*

Title: An Introduction to Machine Learning

Abstract:

The three lecture/tutorials cover the basic principles of machine learning, which is the underlying technology of artificial intelligence. Lecture 1 covers the mathematical foundations with a focus on supervised learning. Lectures 2 and 3 cover a few of the widely used machine learning models, including boosted decision trees, deep feed forward neural networks, convolutional neural networks, auto-encoders and if time permits, transformers (the model underlying ChatGPT). The models will be illustrated with simples example from particle physics, astronomy, and calculus.

Link to the software for the Computer Tutorials:
https://github.com/hbprosper/Terascale

## Summary

**Presenter:**   PROSPER, Harrison (FSU)