

AKPIK 1: AKPIK Machine-Learning Tutorial

Zeit: Montag 9:00–12:00

Raum: H06

Tutorium

AKPIK 1.1 Mo 9:00 H06

Tutorial: Introduction to Data Analysis and Machine Learning — •MAXIMILIAN NÖTHE and KAI ARNO BRÜGGE — Exp. Physik 5, TU Dortmund, Germany

Data analysis using machine learning is an integral part in most areas of experimental high energy physics.

In this tutorial targeted at beginners, we will teach you the basics of the most common machine learning algorithms using the scientific

python stack, most importantly pandas for data preparation and scikit-learn for Machine Learning.

The tutorial will cover several supervised machine learning algorithms, e. g. using example physics data from Imaging Air Cherenkov Astronomy.

Participants should bring their Laptops with a working python 3 installation and download the example data files beforehand. Setup instructions will be available at <https://github.com/tudo-astroparticlephysics/dpg2019-ml-tutorial>