Dr. Mindaugas Šarpis

Lessons on Data Analysis from CERN

Lecture 4

Overview of Computing Principles

Info

First Test on the 22nd of October

- 22 Multiple Choice Questions

- 1 Bonus Open Question

- Topics from Lectures and Seminars

  - Main Logic and Principles of Data Analysis

  - Python Basics

Crash Course on Main Principles Computing

Blackboard exercise

Interlude to CERN Computing ...

Python Modules

- A file containing Python code related to a specific task is called a module

- Modules can be imported into other modules or scripts

- It is a good idea to have granularity (modularity) in code, separating modules / scripts and the rest

Python Packages

- **A package is a collection of modules related to the same task or domain**

- **Packages are available in the Python Package Index (PyPI)**

- **Packages can be easily installed via CLI using `pip`**

- **It is not difficult to create your own package**

Python Libraries

- **A library is a collection of packages and modules**

- **One of the strengths of python is its vast library ecosystem or powerful specialized libraries**