



Contribution ID: 5

Type: **not specified**

Key skills course: Best practices of software development (part 1)

Maximizing the potential of particle physics requires an investment in the software used to collect, process, and analyze the data and simulation. In particular, mindful development of software for particle physics analysis is important to ensure its robustness, efficiency, reproducibility, and in some cases, longevity. In this key skills course, we will discuss the software development life cycle and some ideas for best practices of software development. After we review the basic tools for development like computing clusters (such as the National Analysis Facility) and batch computing, we will discuss good coding practices, software testing, continuous integration, and documenting with GIT. For each of these topics, exercises that are tailor-made to the needs of QU software developers will be demonstrated, and participants will have the opportunity to practice these exercises alongside the demonstration.

Session Classification: Key skills course II