



ID contributo: 1132

Tipo: Parallel Talk

## Grand Challenge of Software Training in HEP

*sabato 9 luglio 2022 09:45 (15 minuti)*

Modern HEP experiments are invested heavily in software. The success of physics discoveries hinges on software quality for data collection, processing, analysis, and the ability of users to learn and utilize it quickly. While each experiment has its own flavor of software, it is mostly derived from tools in the common domain. However, most users learn software skills only after joining a research program. Individual universities do not uniformly provide software training to students, prior to beginning HEP research. Embarking on a HEP-specific path presents its own experiment-specific software environment challenges. Given the international nature of HEP experiments, users have a varied level of preparation. I HEP Software Foundation have together developed software training program to respond to the above challenges and a long-term sustainability of the HEP research software ecosystem. The open source and introductory HEP software curriculum and several software modules on techniques and methods for computing and data science has enabled users to jump start research and contribution to the field. The common efforts on training across HEP has helped build a strong sense of community that also includes HEP Theory, Nuclear Physics and Computer Science. The training program has established a platform that can scale and sustain with time and facilitates inclusiveness. It provides intellectual capital and transferable skills that are becoming increasingly important to career in the realm of software and computing, both, inside and outside HEP. This contribution informs about the structure and work of the above efforts via highly visible medium of ICHEP conference.

### In-person participation

Yes

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**Classifica Sessioni:** Computing and Data handling

**Classificazione della track:** Computing and Data handling