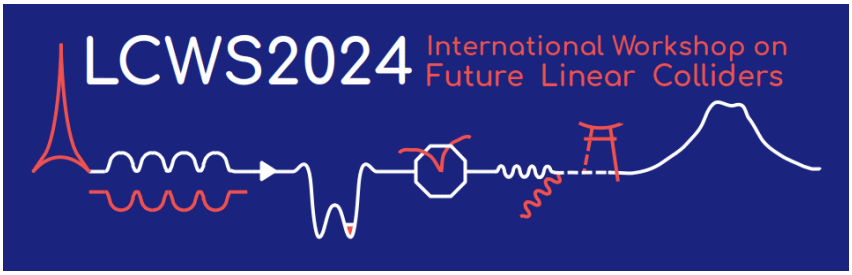

Contribution ID: **192** Type: **Oral presentation (remote)**

Towards production readiness with the Key4hep software stack for future colliders

Wednesday, 10 July 2024 14:20 (20 minutes)

Physics studies for future colliders require a reliable software environment. For many years this has been delivered by iLCSoft for the linear collider communities. In the last five years a common effort of several communities, including ILC, CLIC, FCC and CEPC, have collaborated on the Key4hep software stack to deliver a common software stack for all future collider communities. This software stack has been used for physics studies already and is reaching production readiness.

This presentation an overview of the current status of Key4hep, giving special emphasis on the developments that are particularly relevant for the linear collider communities. We will show the seamless integration of existing reconstruction and analysis software that have been developed in the last 15 years by the linear collider communities. Additionally, we will lay out the path forward from a software perspective and report on experiences from migrating the standard ILD reconstruction chain towards Key4hep. Additionally, we show some new developments for ILD that are currently ongoing within Key4hep. Finally, we report on currently ongoing developments and future plans.

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Session Classification: Software, Reconstruction, Computing

Track Classification: Physics and Detector: Software, Reconstruction, Computing