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Key4hep - The common software stack for future experiments

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Providing and maintaining the necessary tools for studying and developing detectors for future colliders is non trivial. On the one hand it requires a substantially sized software stack with all complications arising therefrom. On the other hand the available person power is usually strongly limited. In order to tackle both the Key4hep project aims at providing a complete software stack that can be used by all future collider communities, e.g. FCC, ILC, CEPC, EIC and MuonCollider among others.

In this presentation we give an overview and status update of the Key4hep project itself but will also dive deeper into some aspects. These include building and maintaining the stack with the spack package manager, key insights and experiences we gained while developing for different communities simultaneously and also how to connect different existing software tools into a coherent framework. Additionally, we will also talk about some of the currently ongoing developments and future plans.

Requested talk length

30

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