Five years of Key4hep - Towards production readiness and beyond

Saturday 20 July 2024 15:38 (17 minutes)

The Key4hep project aims at providing a complete software stack to enable complete and detailed detector studies for future experiments. It was first envisaged five years ago by members of the CEPC, CLIC, ILC and FCC communities and has since managed to attract contributions also from others, such as the EIC or the MuonCollider. Leveraging established community tools, as well as developing new solutions where necessary, the Key4hep software stack is reaching production readiness rapidly, and is already used for physics studies.

This presentation will give an overview of the status of the Key4hep project and the components that are developed within its context. We will also report on some key insights and experiences that we gained along the way, e.g. integrating communities and their existing tools into a coherent approach, or on our experiences with building and releasing the stack using spack. Finally, we briefly highlight currently ongoing developments and plans.

Alternate track

I read the instructions above

Yes

Primary authors: TOLOSA-DELGADO, Alvaro (CERN); SAILER, Andre (CERN); FRANCOIS, Brieuc (CERN); GAEDE, Frank-Dieter (Deutsches Elektronen-Synchrotron (DE)); GANIS, Gerardo (CERN); STEWART, Graeme A (CERN); Mr ZOU, Jiaheng; CARCELLER, Juan Miguel (CERN); SMIESKO, Juraj (CERN); REICHENBACH, Leonhard (University of Bonn (DE)); FILA, Mateusz; KO, Sang Hyun (Seoul National University (KR)); SASIKUMAR, Swathi (CERN); JOOSTEN, Sylvester; Dr LIN, Tao; Dr LI, Teng (Shandong University, CN); MADLENER, Thomas (Deutsches Elektronen-Synchrotron (DESY)); Dr LI, Weidong (IHEP, Beijing); DECONINCK, Wouter; HUANG, Xingtao; ZHANG, xiaomei (IHEP,Beijing)

Presenter: SASIKUMAR, Swathi (CERN)

Session Classification: Computing and Data handling

Track Classification: 14. Computing, AI and Data Handling