



Contribution ID: 36

Type: **(b) Poster abstract only (one author must be in person)**

## Key4hep cheatsheet

*Thursday 13 June 2024 18:42 (1 minute)*

Key4hep is a framework which aims at integrating all physics software of the future colliders. The proposed poster will present a “Cheatsheet” of Key4hep to better inform all FCC colleagues at the conference about its design, implementation, conventions and best practices. The focus will be mainly held on the four pillars of Key4hep, which are: Gaudi – event processing framework with services, algorithms and tools as a building blocks; EDM4hep – common datamodel intended for all stages of the event lifecycle (from simulation, through reconstruction, up to the analysis); DD4hep – detector description able to compartmentalize individual sub-detectors allowing Plug-and-Play approach; and Spack – software distribution solution providing multiple versions and/or multiple configurations of a package.

**Primary authors:** TOLOSA-DELGADO, Alvaro (CERN); SAILER, Andre (CERN); HEGNER, Benedikt (CERN); FRANCOIS, Brieuc (CERN); BRONDOLIN, Erica (CERN); GAEDE, Frank-Dieter (Deutsches Elektronen-Synchrotron (DE)); GANIS, Gerardo (CERN); STEWART, Graeme A (CERN); Mr ZOU, Jiaheng (IHEP, Beijing); 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)); VOLKL, Valentin (CERN); Dr LI, Weidong (IHEP, Beijing); FANG, Wenxing; DECONINCK, Wouter; ZHANG, Xiaomei (Chinese Academy of Sciences (CN)); Prof. HUANG, Xingtao (Shandong University (CN))

**Presenter:** CARCELLER, Juan Miguel (CERN)

**Session Classification:** Poster session

**Track Classification:** Physics, Experiments and Detectors: Software