

CEPCSW: the Key4hep-based software for CEPC

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The CEPC (Circular Electron Positron Collider) is a future experiment to explore the properties of the Higgs bosons, as well as the W and Z bosons. Initially, the experiment utilized the iLCSoft software, which served as the foundation for the completion of the CEPC conceptual design report. To facilitate further research and development activities, the experiment has decided to develop a new software called CEPCSW within the Gaudi software framework. One of the benefits brought by this transition is to make it straightforward to subsequently integrate with the Key4hep, a common software stack developed for future HEP experiments such as CEPC, CLIC, FCC, and ILC, etc. By employing the common event data model, EDM4hep, the CEPC experiment can transparently share tools, algorithms, and other software components with the experiment owning a similar detector configuration. This abstract highlights the successful adoption of CEPCSW and its compatibility with the Key4hep, emphasizing the potential for enhanced cooperation and advancement in the field of High Energy Physics.

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