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Computing environment for the Super-Charm-Tau factory detector project

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The project of the Super Charm-Tau (SCT) factory — a high-luminosity electron-positron collider for studying charmed hadrons and tau lepton — is proposed by Budker INP. The project implies single collision point equipped with a universal particle detector. The Aurora software framework has been developed for the SCT detector. It is based on trusted and widely used in high energy physics software packages, such as Gaudi, Geant4, and ROOT. At the same time, new ideas and developments are employed, in particular the Aurora project benefits a lot from the turnkey software for future colliders (Key4HEP) initiative. We will present the first release of the Aurora framework and its core technologies, structure and roadmap for the near future. From the hardware point of view the Budker INP general computing facility (BINP/GCF) providing the required computational and storage resources will be described together with recent developments for the fullscale offline computing infrastructure.

Summary

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