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Current status and future development of ASICs for HIAF complex

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The Heavy Ion Research Facility in Lanzhou (HIRFL) and the High-Intensity Heavy-ion Accelerator Facility (HIAF) are leading platforms for heavy ion scientific research in China. Several physics experiments are being under construction at HIAF, such as the Electron-ion collider in China (EicC), the China Hyper-Nuclear Spectrometer (CHNS), the High energy FRagment Separator (HFRS), etc. Developments of Application Specific Integrated Circuits (ASICs) are critical for the physics experiments at HIAF. This paper will introduce the current status and future development of ASICs for the HIAF complex. This paper discusses the current status and future plan of the ASICs development, including the front-end readout ASIC for silicon strip detectors, silicon pixel detectors, TPC detectors, TOF detectors, and LGAD detectors. In addition, we will also present design of the high-performance ADCs and high-speed SERDES.

Minioral

No

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