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【321】 Performance of the Belle II Silicon Vertex Detector

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The Belle II experiment at the SuperKEKB collider of KEK (Japan) will accumulate 50 ab^{-1} of e^+e^- collision data at an unprecedented instantaneous luminosity of $8 \cdot 10^{35} \text{ cm}^{-2}\text{s}^{-1}$, about 40 times larger than its predecessor. The Belle II vertex detector plays a crucial role in the rich Belle II physics program, especially for time-dependent measurements. It consists of two layers of DEPFET-based pixels and four layers of double sided silicon strip detectors (SVD). The vertex detector has been recently completed and installed in Belle II for the physics run started in spring 2019. In this presentation, we summarise the construction and installation of SVD and report first results from SVD commissioning and SVD performance in the first SuperKEKB collisions.

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