

# The Belle II Silicon Vertex Detector: Performance and Running Experience

*Thursday 30 July 2020 12:10 (15 minutes)*

In spring 2019 the fully equipped Belle II experiment started data taking at the energy of the  $Y(4S)$  resonance. The new vertex detector (VXD) consists of two inner layers of DEPFET pixels (PXD) and four layers of double-sided silicon strip detectors (SVD). It plays a crucial role in recording high-quality data in the new high-luminosity environment of the SuperKEKB collider, characterized by severe beam backgrounds. The SVD was operated reliably during the 2019 physics run, showing high stability of the noise levels and calibration parameters. The SVD performance, measured with first data, showed excellent hit and tracking efficiency, high signal-to-noise ratio and cluster energy distribution in fair agreement with the expectations. Detailed studies of the good spatial resolution achieved will be shown. The excellent hit-time resolution has also been measured, which will be exploited for background rejection in the coming years of running at higher luminosity.

## I read the instructions

## Secondary track (number)

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