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## Studies on beam instabilities in the storage ring of SAPS

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The South Advanced Photon Source (SAPS) is a newly proposed storage ring (SR) based photon source project operating at the beam energy of 3.5GeV. To achieve X-ray diffraction-limited in the SR with high density bunch, larger coupling impedance brought by more compact beam pipe structure is inevitable, which makes the beam collective effects be one of the major challenges to the physical design. By impedance modelling and beam dynamics simulations, the longitudinal and transverse beam instabilities in SR have been studied.

## **Funding Agency**

## **Footnotes**

## I have read and accept the Privacy Policy Statement

Yes

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