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## Studies of coupled-bunch instabilities in the HEPS booster

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The High Energy Photon Source (HEPS), which is a 6 GeV diffraction-limited storage ring (DLSR)-based synchrotron light source, is under construction in Beijing, China. HEPS consists of a Linac, a booster synchrotron, and a storage ring. The HEPS booster is proposed to operate in multi-bunch mode. And the 5-cell PETRAtype cavity, which is rich in high-order modes (HOMs), is chosen to be used in HEPS booster. For the related coupled-bunch instabilities (CBI), comprehensive studies are performed. In this paper, we present the studies of CBIs both at the two fixed energy points (500 MeV and 6 GeV) and with the consideration of the energy ramping process in the HEPS booster.

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## Footnotes

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