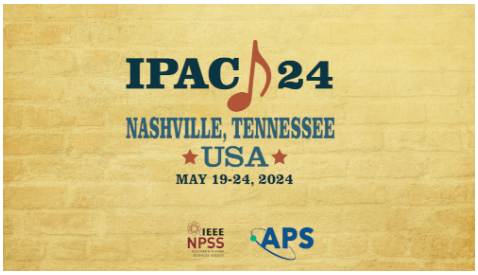

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Preliminary study of HALF lattice utilizing superconducting longitudinal gradient bend

Tuesday, 21 May 2024 16:00 (2 hours)

The Hefei Advanced Light Facility (HALF) is a diffraction-limited storage ring with a 2.2 GeV energy and modified 6BA lattice that is currently under construction. To meet the requirement for high-brightness hard X-rays, it is being considered that superconducting longitudinal gradient bend will replace ordinary longitudinal gradient bend in some cells in the future. Based on the measured magnetic field of a prototype, a preliminary study was conducted to explore modifying the storage ring lattice and optimizing the field shape of the superconducting longitudinal gradient bend to enhance the performance of HALF.

Footnotes

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