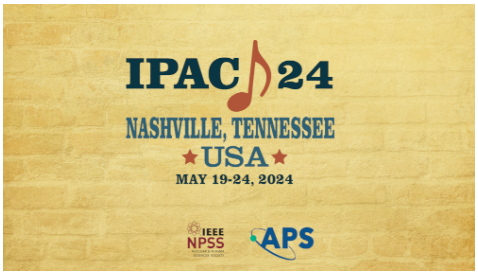

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Evaluation of top-up injection by a single nonlinear kicker in Taiwan Photon Source

Thursday, May 23, 2024 4:00 PM (2 hours)

The Nonlinear Injection Kicker (NIK) scheme for the Taiwan Photon Source (TPS) has been under study as a potential replacement for the current bump-based injection scheme. The evaluation encompasses three phases of the NIK scheme. In phases I and II, the orig-inal Booster to Storage Ring Transfer Line (BTS) is utilized to assess the performance of a prototype NIK. Phase III involves the redesigning of the BTS within the NIK injection scheme, thereby freeing up space occupied by the original four kickers used in the bump-based injection, for the insertion of devices. The positions of the NIKs, considerations, and limitations regarding the design of the new BTS, as well as other related issues, are thoroughly discussed.

Footnotes

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Paper preparation format

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