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The impact of the resistive-wall impedance on the ILSF storage ring

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The resistive contribution of the vacuum chamber is a significant part of the impedance budget. Due to the NEG-coated re-designed ILSF vacuum chamber, the resistive-wall effects must be carefully studied. The resistive impedance of the insertion devices and general cross-section of the storage ring was calculated by CST and WI2D code. In addition, the fast-correctors containing a resistive insert with a conductivity different from the rest of the pipe were simulated in CST. Finally, the not negligible effect of the heat load and threshold current was studied. The single-bunch calculations were done by ELEGANT code. The final results in longitudinal and transverse planes are presented here.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

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