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Progress on the New Booster for SOLEIL II

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The SOLEIL II storage ring project will require an injected beam with small transverse and longitudinal sizes. To meet this requirement, a new multi-bend 14BA Higher-Order Achromat lattice has been de-signed to reduce the booster emittance from the pre-sent 140 nm.rad to 5 nm.rad @ 2.75 GeV. In this paper we report the progress in the booster beam dynamics studies, considering the linac energy increase from 110 to 150 MeV, and all errors coming from injection mag-nets, injected beam parameters, booster magnets and RF system, whereas the resistive wall study is reported elsewhere. The progress in designing the magnets, the vacuum system, the ramped power supplies, and the diagnostics is presented.

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Footnotes

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