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Updates to Diamond-II storage ring error specifications and commissioning procedures

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The Diamond-II storage ring lattice has continued to be developed after publication of the Diamond-II's technical design report. This study provides the updated information needed for the commissioning simulation. Firstly, changes to the reference lattice and phase-one insertion devices are briefly described. Then the error specifications are amended to be consistent with the magnet measurement and girder installation strategy. The commissioning strategy is revised accordingly with the associated errors. Finally, the commissioning simulations of multiple random machines are performed. Some of the statistical results are shown to justify the engineering feasibility of off-axis injection and beam accumulation with high injection efficiency.

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Footnotes

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Yes

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