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## **Alternative Diamond-II storage ring optics with high beta section for improved injection**

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The nominal Diamond-II storage ring optics have been designed to produce a pseudo twenty-four-fold symmetry by maintaining equal phase advance across the long and standard straights [1]. In this paper, the impact of introducing a high beta section in the injection straight and reducing the ring symmetry to one have been extensively investigated. This solution does not require any additional hardware and so can be switched on or off as required. In this paper we present the optics solution and study the expected performance.

[1] Diamond-II Technical Design Report, (2022).

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### **Footnotes**

### **I have read and accept the Privacy Policy Statement**

Yes

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