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First results of the multipole injection kicker in the MAX IV 1.5 GeV ring

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A Multipole Injection Kicker (MIK) has been successfully designed, constructed, installed and commissioned with beam in the MAX IV 1.5 GeV ring. This device allowed reaching injection efficiencies as high as those obtained with the previously used conventional dipole injection kicker scheme, while at the same time providing an order of magnitude reduction in the perturbations to the stored beam resulting from the injection process. In addition, the device has had a major positive impact in allowing effective top-up injection under the strong optics perturbations generated by long-period elliptically polarizing undulators. In this paper we describe the first operations with the device and detail the process of optimisation and commissioning.

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Footnotes

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Yes

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