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Amplitude dependent tune shift measurements at KARA

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KIT operates the storage ring KARA (Karlsruhe Research Accelerator) as an accelerator test facility, which serves as a testbed for different electron beam-based experiments. Thus, it motivates to study the beam conditions extensively.

To extend the existing characterisation of non-linear parameters, the amplitude dependent tune shift (ADTS) was measured. ADTS is typically controlled by octupole magnets in a storage ring, which are not available at KARA, but the installed insertion devices exert a certain octupole component on the beam resulting in a change of the ADTS.

This contribution presents measurements of the amplitude dependent tune shift for different combinations of active insertion devices.

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Footnotes

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Yes

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