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Beam-based alignment of beam position monitors at SLS 2.0

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Large initial beam position monitor (BPM) offsets have to be reduced by one order of magnitude by means of beam-based calibration (alignment) (BBA) in order to match the element-to-element magnet alignment error. At SLS 2.0 the BBA will be performed with respect to adjacent auxiliary quadrupole magnets, which are also employed for optics and tune correction. Different static and dynamic techniques can be applied to determine the offsets. The error of the individual measurements needs to be at the micrometer level to guarantee the necessary reproducibility of position and angle at the beamline source points on medium- and long-term time scales.

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Footnotes

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Yes

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