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## Diamond sensors for fast pulse-resolved hard X-ray FEL beam position and intensity monitoring

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There are commercially available diamond sensors for synchrotron beams, but they are incompatible for application at XFELs. EuXFEL had launched dedicated R&D to create sensors that survive intense MHz-rate beams and deliver fast pulse-resolved position and intensity data. This presentation reports on new sensors and results of their testing with hard x-ray FEL beam, where we introduced fast e-beam orbit kicks. Future applications like integration to feedback loops with the electron machine could bring beam stability to a new level.

### Footnotes

### Funding Agency

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