



Contribution ID: 92 Contribution code: MOP52

Type: **Contributed Poster**

## Demonstration of Large Bandwidth Mode with a Spatially Tilted Beam at SwissFEL

*Monday, 22 August 2022 17:10 (20 minutes)*

X-ray absorption spectroscopy (XAS) with a SASE signal can be improved if the full XAS and reference spectrum are taken on a shot-to-shot basis, thus eliminating the impact of the intrinsic SASE fluctuations in the spectrum. This can be further improved if the FEL pulse has the frequency information encoded in its spatial position. The spatial encoding is achieved when a spatially tilted electron beam with a strong energy chirp is injected into a focusing-free undulator channel. We report on the demonstration of this mode at the hard X-ray beamline Aramis at SwissFEL. Possible applications and an outlook for further studies are discussed.

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Yes

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**Session Classification:** Monday posters

**Track Classification:** SASE FEL