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## **Improvement of XFEL Brightness at PAL-XFEL**

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

We (PAL-XFEL) have improved the PAL-XFEL performances remarkably since the user-service operation in 2017. We achieved the self-seeded XFEL with a peak brightness of  $3.2 \times 10^{35}$ , the highest to date, and reached a SASE FEL intensity of 3.2 mJ due to the improved beam emittance of 0.3 mm-mrad. The statistics of the SASE FEL intensities over the past three years show that the SASE FEL performance is critically dependent on the injector emittance.

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Yes

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