



Contribution ID: 2389 Contribution code: THPL137

Type: **Poster Presentation**

## **Photon beam stability and XBPMs at the MAX IV storage ring light source**

*Thursday, 11 May 2023 16:30 (2 hours)*

The 3 GeV storage ring light source at the MAX IV Laboratory in Sweden is currently operating with 10 insertion device beamlines. Each of them is equipped with a pair of photon beam position monitors (XBPMs) in the beamline front end. During the past years these XBPMs have been developed to be a reliable monitoring tool for measuring photon beam stability during beamline operation. As a complement to the RF BPMs for the electron beam, the XBPM system offers an evaluation of the performance of the electron beam orbit feedback from a photon beam stability point of view.

The concept of a feedback on the electron beam orbit from measured photon beam position in the front end was demonstrated during machine study shifts and results will be presented, along with an evaluation of the potential benefits of such a feedback.

### **Funding Agency**

### **Footnotes**

### **I have read and accept the Privacy Policy Statement**

Yes

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**Session Classification:** Thursday Poster Session

**Track Classification:** MC6: Beam Instrumentation, Controls, Feedback and Operational Aspects:  
MC6.T03: Beam Diagnostics and Instrumentation