



Contribution ID: 150

Type: **Poster DTS**

Continuous Imaging, >100kHz (Development of the CoRDIA detector)

Monday 3 November 2025 18:25 (3 minutes)

CoRDIA (Continuous Readout Digitising Imager Array) is an X-ray imager being developed (as a collaboration between DESY and University of Bonn), for Photon Science experiments at Diffraction-Limited Synchrotron Rings and Continuous-Wave (or long-bursts) Free Electron Lasers.

Its goal is to be capable of continuous operation at 150k frame/s.

It aims at single-photon discrimination at 12keV (but is compatible also with high-Z sensors for higher energies) and a dynamic range of a few k photon/pixel/frame (extendable in High-Dynamic-Range mode).

It is composed by a battery of adaptive-gain amplifiers (similar to the AGIPD detector), Analog-to-Digital converters, and fast digital drivers (reusing the Gigabit Wire Transmitter principle from Timepix4), arranged in a pipelined, modular structure compatible with a compact pixel pitch (110um).

Speed talk:

I am unwilling/unable to present a speed talk

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Session Classification: Poster