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## Towards real-time data reduction in serial-crystallography

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We present a novel image analysis of diffraction frame which is applied to macro-molecular serial crystallography.

This new signal separation algorithm is able to distinguish the amorphous (or powder diffraction) component from the diffraction signal originating from single crystals. It relies on the ability to work efficiently in azimuthal space and derives from the work performed on pyFAI, the fast azimuthal integration library.

Two applications are presented: a lossy compression algorithm and a peak-picking algorithm; the performances of both is assessed and compared to state of the art reference implementations: XDS and CrystFEL.

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