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Processing HDF5 data with FPGAs

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HDF5 format is used to store experimental data from photon and neutron sources worldwide. Field programmable gate arrays (FPGAs) are recently finding applications in data acquisition on accelerator-based photon sources. FPGAs can be used also as regular compute accelerators similarly to general purpose graphical processing units. Options for feeding FPGA data reduction algorithms with compressed data and HDF5 format are discussed. X-ray scattering data compressed with popular bslz4 filter are of a particular interest.

Website

https://gitlab.com/MAXIV-SCISW/compute-fpgas

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