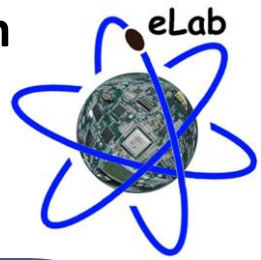


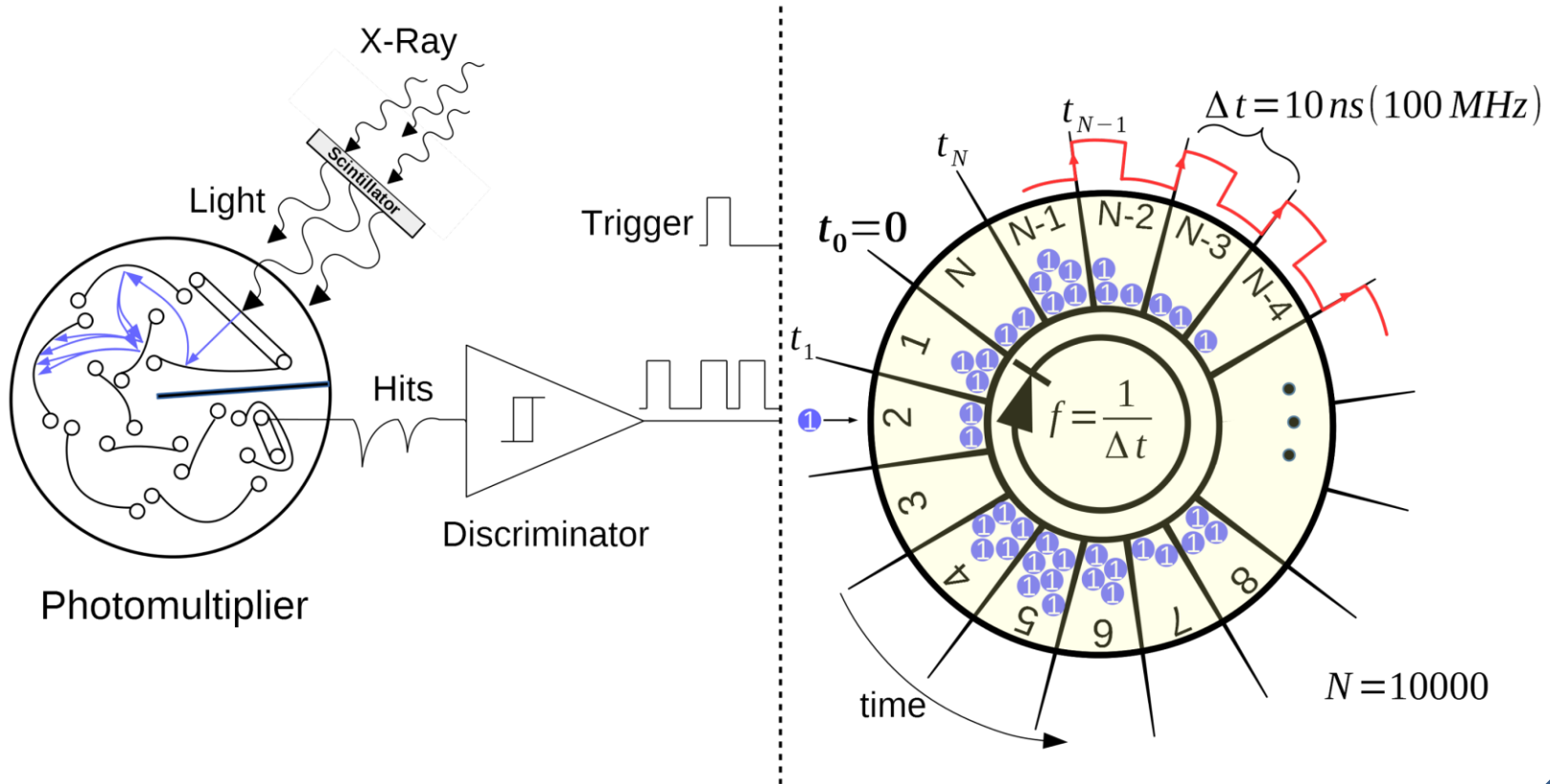
Multi-Channel FPGA-Based Data-Acquisition-System for Time-Resolved Single-Photon Counting in Synchrotron Radiation Experiments



Operating Principle of our DAQ system (one channel)

Detector channel

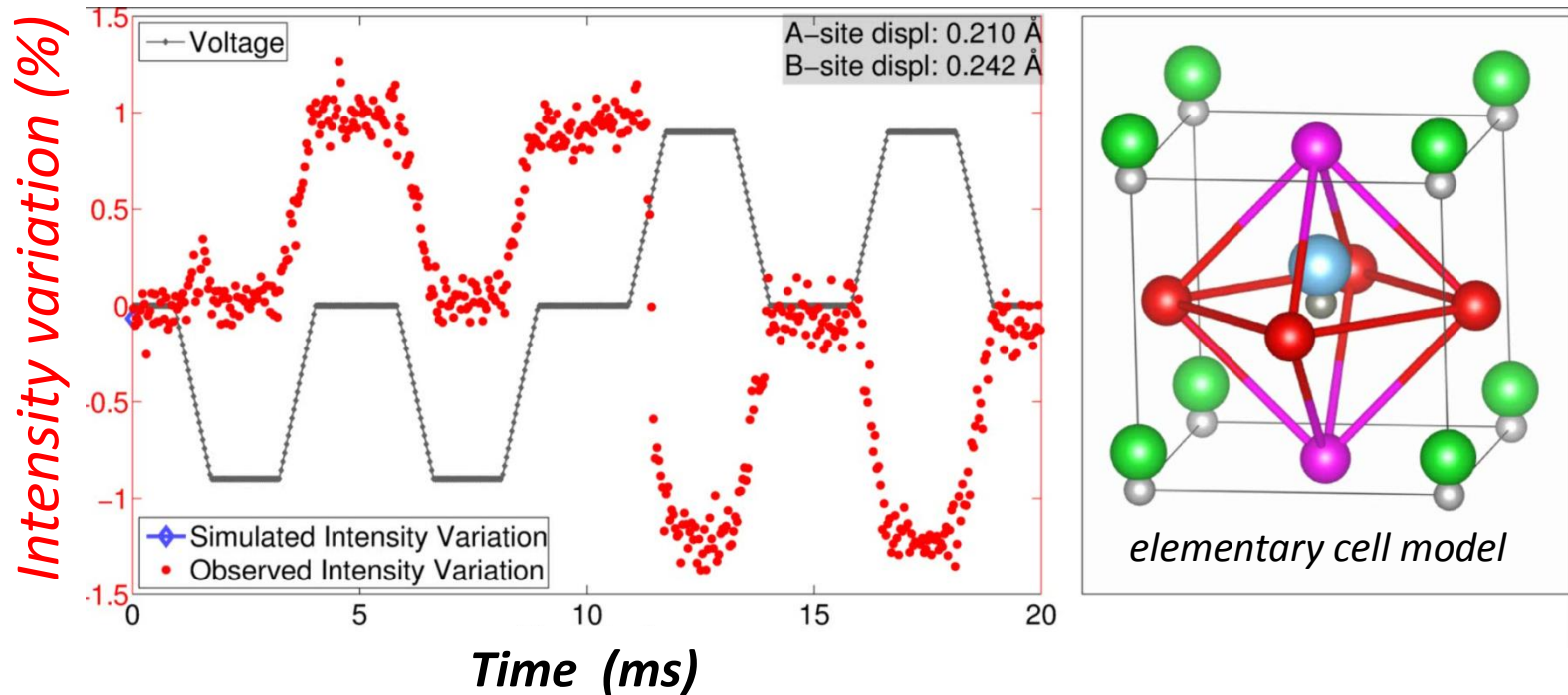
Multi time-bin scaler



Speaker: Michael Ziolkowski, University of Siegen (Germany)

Here is an example of an X-ray diffraction result we obtained for a *prototypical ferroelectric material* ($\text{BaTiO}_3\text{-BiZn}_{0.5}\text{Ti}_{0.5}\text{O}_3$) using our DAQ system:

→ *Time evolution of the Bragg peak intensity* under externally applied electric field perturbation.



→ *Structural dynamics in-situ: a reversal of two polarization states; in a ferroelectric DRAM - a transition between binary states "0" and "1" .*

I look forward to meeting you on Friday. Poster id: 221. Thank you.