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Front-end and readout systems for high energy physics applications.

Basic front-end electronics systems used for the readout of large scale HEP detectors are described. This covers the on-detector signal capture, digitization, data buffering and final readout via optical links to DAQ interfaces located in the counting house. The basic concepts use of zero-suppression and triggering to reduce the large data volume is explained. Examples from the LHC detectors are used to illustrate the electronics systems used for different types of detectors and an outlook is given for the new readout systems needed for future HEP experiments