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## FELIX: the new ATLAS readout system from Run 3 to High Luminosity LHC

*Saturday, 9 July 2022 12:35 (20 minutes)*

The Front-End Link eXchange (FELIX) system is a new ATLAS DAQ component designed to meet the evolving needs of detector readout into the High-Luminosity LHC era. FELIX acts as the interface between the data acquisition; detector and trigger timing and systems; and new or updated trigger and detector front-end electronics. FELIX also routes data between custom serial links from front-end electronics to data collection and processing components via a commodity switched network. FELIX is being installed and commissioned for a subset of ATLAS detectors for the upcoming LHC Run 3, and will be rolled out to cover all other detectors for the much more challenging environment of Run 4 and HL-LHC. This presentation covers the design of FELIX and its evolution for High-Luminosity LHC, plus commissioning activities ahead of Run 3 and early integration with Run 4 systems.

### In-person participation

Yes

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