Contribution ID: **141** Type: **Talk**

【323】Integration of the FELIX readout in the ATLAS ITk Pixel data transmission chain

Tuesday 27 August 2019 17:30 (15 minutes)

At the end of the Run 2 of the LHC the current Inner Detector (ID) of the ATLAS experiment will need to be replaced. A new all-silicon Inner Tracker (ITk) is currently being designed and given the increase in the simultaneous p-p collisions, its data-taking system will have to use radiation hard high-speed data links at 10 Gbps, for a total bandwidth of ˜ 60 Tbps. In this talk, the concept of the data transmission chain as well as its validation will be presented. The integration with the FELIX backend readout will be shown as well with results from a system where this readout is coupled to an existing set of silicon pixel readout chips.

Author: Ms CHATTERJEE, Meghranjana (University of Bern)

Presenter: Ms CHATTERJEE, Meghranjana (University of Bern)

Session Classification: Nuclear, Particle- & Astrophysics

Track Classification: Nuclear, Particle- and Astrophysics (TASK)