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## **Fast Orbit Feedback with an hybrid BPM system: combining iTech's GbE stream and Diamond's Communication Controller**

*Tuesday 20 June 2023 16:00 (30 minutes)*

The ESRF storage ring is running with an hybrid BPM system made of Libera Brilliances and Libera Spark electronics.

Both BPM system offer a fast stream at 10 kHz of the position data for archiving and orbit feedback purposes. Unfortunately both BPM systems speak a different language: Libera Brilliances fast stream is using the Diamond Communication Controller (DCC), while Sparks are using iTech's GbE protocol.

During this presentation we will show how we integrated Sparks' GbE stream into the DCC to be able to perform a fast orbit correction using the full BPM system.

The advantages of the GbE protocol for such an application and its limitations will be discussed, and the performances of the upgraded fast orbit correction will also be mentioned.

### **Summary**

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**Session Classification:** Session 6